وزارة التعليم العالي والبحث العلمي
جهاز الإشراف والتقويم العلمي
دائرة ضمان الجودة والاعتماد الأكاديمي
قسم الاعتماد

وصف البرنامج الأكاديمي والمقرر الدراسي

2024

وصف البرنامج الأكاديمي

اسم الجامعة: جامعة الموصل

الكلية/ المعهد: كلية الهندسة

القسم العلمي: قسم الهندسة المعمارية

اسم البرنامج الأكاديمي او المهني: بكالوريوس / هندسة عمارة

اسم الشهادة النهائية: بكالوريوس علوم في الهندسة المعمارية

النظام الدراسي: بولونيا –فصلي– مقررات

تاريخ اعداد الوصف: **20/3/2024**

تاريخ ملء الملف: **20/3/2024**

التوقيع:

اسم رئيس القسم: أ.م.د. عمر خروفة

التاريخ:

التوقيع:

اسم المعاون العلمي:أ.م.د. ايمن طالب حميد

التاريخ:

دقق الملف من قبل

شعبة ضمان الجودة والأداء الجامعي

اسم مدير شعبة ضمان الجودة والأداء الجامعي:

التاريخ

التوقيع

مصادقة السيد العميد

١. رؤية البرنامج

تتمثل الرؤية في أن يكون قسم هندسة العمارة في جامعة الموصل مدرسة معمارية مميزة تحاكي نظيراتها على المستوى المحلي والعالمي، من خلال ما يحمله من إمكانات وما يتوفر فيه من خبرات، وذلك بالاسهام في بناء هوية واضحة للبيئة العمرانية المحلية تحقق أهداف الاستدامة الحضارية كجزء من التنمية المستدامة المنشودة عبر التوافق بين الاصالة والحداثة والاستناد الى الاصول الحضارية العريقة كمرجع فكري رصين مع مواكبة التطورات العلمية والتقنية الحديثة على مستوى العالم باعتماد مفاهيم الاستدامة العمرانية والالتزام بمعايير الجودة العالمية .

٢. رسالة البرنامج

رسالة قسم هندسة العمارة تكمل رسالة كلية الهندسة وجامعة الموصل من خلال تقديم برامج تعليمية عالية الجودة في مختلف التخصصات وعلى جميع المستويات. تهدف هذه البرامج إلى تأهيل خريجين ذوي كفاءة عالية قادرين على المساهمة في التنمية المعرفية والاقتصادية والاجتماعية والعلمية للمجتمع، مع الالتزام بالقيم الأخلاقية والمهنية.

يسعى القسم إلى إيجاد بيئة تعليمية مستقرة تدعم الإبداع الفكري وتحترم حقوق الإنسان، مع الحفاظ على البيئة والتوظيف الأمثل للتكنولوجيا الحديثة. كما يحرص القسم على توفير كوادر أكاديمية مؤهلة وتقديم خدمات استشارية فنية لتعزيز أداء مؤسسات المجتمع.

يعمل القسم على إنتاج بحوث إبداعية تسهم في بناء مجتمع المعرفة، ويدعم المجتمع بكوادر هندسية معمارية مؤهلة للمساهمة في مشاريع الإعمار. كما يقدم خدمات استشارية هندسية تلبي احتياجات المجتمع وتساهم في تطوير مدينة الموصل وعموم العراق.

يسعى القسم للحفاظ على الهوية الحضارية والقيم الأصيلة من خلال طرح أفكار مستمدة من تاريخ البلد العريق، مع التوافق مع متطلبات العصر الحديث والتقدم التكنولوجي السريع في مختلف مجالات الحياة.

٣. اهداف البرنامج

- إعداد كوادر مؤهلة علمياً ومهنياً وتربوياً في مختلف المجالات المعرفية وفقاً لمعايير جودة عالية.

- تعزيز البحث العلمي في العلوم النظرية والتطبيقية، مع تشجيع المبادرات المرتبطة ببرامج التنمية، والحرص على مواكبة التطورات العلمية العالمية والتخطيط للمستقبل.
- التطوير المستمر للمناهج الدراسية في المرحلتين الجامعية والدراسات العليا، بما يتناسب مع المستجدات العلمية والمنهجية والتقنية الحديثة.
- المشاركة في خدمة المجتمع من خلال التفاعل المستمر مع مؤسسات الدولة وتقديم الاستشارات العلمية، وتعزيز برامج التعليم المستمر.
- ربط العمارة بالتخصصات الهندسية الأخرى وتنمية العلاقات معها، باعتبارها جزءاً أساسياً من نهضة المجتمع.
- التأكيد على دور هندسة العمارة في بناء المجتمع وتحسين البيئة التي يعيش فيها الناس.
- إعداد خريجين معماريين وفق قواعد علمية تمكنهم من ممارسة المهنة بكفاءة في التصميم المعماري والحضري وتخطيط المدن والفضاءات الداخلية والخارجية، إلى جانب الحفاظ على التراث والآثار وفق الأساليب العلمية.
- تنفيذ برامج عملية واضحة تهتم بتكنولوجيا الاستدامة ومعايير الجمال المعماري، مع مواكبة التطور في الدول المتقدمة من خلال توفير برنامج تعليمي معماري يعتمد على التقنيات الحديثة في المجالات الهندسية والفنية.
- التركيز على جودة العملية التعليمية في العمارة من خلال اختيار مناهج دراسية متخصصة وحديثة باستمرار، وإنجاز تقارير التقييم الذاتي بهدف الحصول على الاعتماد الأكاديمي.
- تمكين الكوادر التدريسية في قسم هندسة العمارة من خلال زيادة نسبة حملة شهادات الدكتوراه مقارنة بحملة الماجستير.
- الاهتمام بالبحوث العلمية التطبيقية وتصميم المشاريع التطبيقية لتعزيز الشراكات والعلاقات مع المؤسسات والجامعات المرموقة.
- تطوير مهارات الخريجين من خلال توفير دورات التعليم المستمر التخصصية والحفاظ على التواصل معهم بما يعزز تحقيق رسالة القسم.

٤. هيكلية البرنامج

هيكل البرنامج	عدد المقررات	وحدة دراسية	النسبة المئوية	ملاحظات *
متطلبات الجامعة	٦	١٥	8%	مقرر اساسي
متطلبات الكلية	٣	٦	4%	مقرر اساسي
متطلبات القسم	٦٥	127	88%	
التدريب الصيفي	يوجد			
أخرى				

* ممكن ان تتضمن الملاحظات فيما اذا كان المقرر أساسي او اختياري .

٥. وصف البرنامج

السنة / المستوى	رمز المقرر	اسم المقرر	الساعات المعتمدة	
			نظري	عملي
٢٠٢٣-٢٠٢٤ / الاول-نظام مسار بولونيا	ARC111	التصميم والرسم المعماري(١)	2	6
	ARC112	الهندسة الوصفية والرسم الهندسي	1	3
	ARC113	الفن والعمارة	2	
	ARC114	اللغة العربية	2	
	ARC115	الرياضيات ١	2	2
	ARC116	الديمقراطية وحقوق الانسان	2	
	ARC121	التصميم والرسم المعماري(١)	2	6
	ARC122	الرسم اليدوي الحر	1	3
	ARC123	الانشاء ومواد البناء	2	1
	ARC124	أساسيات الحاسوب		2
	ARC125	الرياضيات ٢	2	2
	ARC126	الإنكليزية للمبتدئين		2
٢٠٢٣-٢٠٢٤ / الثاني-نظام فصلي	ARC 211	التصميم المعماري ٢	2	8
	ARC 212	الرسم اليدوي ٣		4
	ARC 214	تاريخ عمارة قديمة	2	
	ARC 215	الرسم بمساعدة الحاسوب ١	1	2
	ARC 216	تركيب مباني ١	1	2
	UoM 212	اللغة الانكليزية- دون المتوسط	2	

	STR 217	الميكانيك الهندسي	2	
	SUR 218	المساحة	1	2
	MAT 213	مبادئ الاحصاء وتطبيقاته	2	
	ARC 211	التصميم المعماري ٢	2	8
	ARC 223	الظل والمنظور	1	3
	ARC 224	تاريخ عمارة اوربية	2	
	ARC 225	الرسم بمساعدة الحاسوب ٢	1	2
	ARC 226	تركيب مباني ٢	1	2
	ARC 227	مبادئ الاسكان	2	
	STR 227	مقاومة المواد	2	
	STR 222	مختبر فحص المواد	1	2
	ARC 228	الفنون الاسلامية (اختيارية)	2	
	ARC 229	العمارة والعلوم الانسانية (اختيارية)	2	
٢٠٢٣-٢٠٢٤ / الثالث – نظام المقررت	ENGE337	مبادئ التصميم الهندسي	2	
	ARC 341	التصميم المعماري(٥)	1	8
	ARC 342	الرسوم التنفيذية(١)	1	4
	ARC 343	خدمات المباني (١)	2	
	ARC 344	الخرسانة المسلحة (١)	1	2
	ARC 345	مبادئ التخطيط	2	
	ARC 346	تقنيات الاظهار المعماري بالحاسوب	1	2
		اللغة الانكليزية– المتوسط	2	
	ARC347	التصميم المعماري(٦)	1	8
	ARC348	تاريخ العمارة (2)	2	
	ARC349	الخرسانة المسلحة (٢)	1	2
	ARC350	خدمات المباني(٢)	2	
	ARC351	الرسوم التنفيذية(٢)		4
	ARC352	المنطق ومنهجية التصميم	1	
	ARC361	تطبيقات التخطيط والاسكان	1	2
	ARC362	نظم التحكم البيئي	2	
	ARC363	التشريعات العمرانية	2	

المرحلة الرابعة – نظام المقررت / ٢٠٢٣-٢٠٢٤	ENAR-401	التصميم المعماري	2	10
	ENAR-402	التصميم الداخلي	1	2
	ENAR-403	تصميم فضاءات خارجية	1	2
	ENAR-404	عمارة إسلامية	2	
	ENAR-405	تقنيات البناء المتقدم	2	
	ENAR-406	نظرية العمارة	2	
	ENAR-407	الإسكان	2	
	ENAR-408	نظرية التصميم الحضري	2	
	ENAR-409	العمارة والمناخ	2	
	ENAR-410	العمارة والصوت	2	
	ENAR-411	برمجة فضاءات معمارية	2	
	ENAR-412	تصاميم المنشات الفولاذ	2	
المرحلة الخامسة – نظام المقررت ٢٠٢٣-٢٠٢٤	ENAR-501	الاطروحة التصميمية ١	2	6
	ENAR-502	التصميم الحضري	2	10
	ENAR-503	الاطروحة التصميمية ٢	2	14
	ENAR-504	نظريات النقد المعماري	2	
	ENAR-505	العمارة العراقية المعاصرة	2	
	ENAR-506	العمارة العربية المعاصرة	2	
	ENAR-507	التخمين والمواصفات	2	
	ENAR-508	ممارسة المهنة	2	

٠٦ مخرجات التعلم المتوقعة للبرنامج

المعرفة

١أ. تشمل مبادئ العلوم الأساسية والتطبيقية والهندسية الضرورية لتقديم تخصص هندسة العمارة، مثل الرياضيات والهندسة المجسمة والفيزياء والرسم الهندسي والإحصاء والتقنيات الحاسوبية والأتمتة.

٢أ. تغطي علوم هندسة العمارة التخصصية جوانب متنوعة من التصميم المعماري والتنفيذ والإنشاء والرسوم التنفيذية والرسم المعماري والحر، بالإضافة إلى التصميم الداخلي وتصميم الفضاءات الخارجية والتصميم الحضري وتخطيط المدن. تهتم هندسة العمارة بالعديد من الجوانب وتتفاعل مع العديد من العلوم وتساهم في تطبيقات مهمة في الحياة اليومية.

٣أ . الأهداف المهنية والأسس المساندة: تشمل المهارات الداعمة للتطبيق ضمن أطر نظرية، مثل كتابة التقارير والبحوث، بالإضافة إلى المعرفة بالمحددات الاقتصادية والقانونية والصحية والاجتماعية والأمنية.
المهارات
١ب . مهارات التصميم: اكتساب القدرة على إنشاء تصاميم معمارية مبتكرة ومستدامة، بما في ذلك التصميم الداخلي وتصميم الفضاءات الخارجية والحضرية. ٢ب. مهارات البحث والتحليل: تطوير مهارات البحث وجمع المعلومات وتحليلها لتطبيقها في مشاريع التصميم، بما في ذلك الاعتبارات البيئية والاقتصادية والاجتماعية. ٣.ب. مهارات التواصل والتعاون: تعزيز مهارات التواصل الفعّال والعمل الجماعي مع زملاء الدراسة والمتخصصين في مجالات متعددة، بما في ذلك كتابة التقارير وعرض الأفكار بشكل واضح ومقنع.
القيم
ج١ الإبداع والابتكار: تعزيز قيم الإبداع والابتكار في عملية التصميم والبحث، مما يسهم في تطوير حلول معمارية مبتكرة ومستدامة. ج٢ المسؤولية الاجتماعية والبيئية: تعزيز الوعي بالمسؤولية الاجتماعية والبيئية للمهندس المعماري، وضمان تطبيق مبادئ التنمية المستدامة في مشاريع التصميم والبناء.

٧. الاعتماد البرامجي
لا يوجد

٨. المؤثرات الخارجية الأخرى
لا يوجد

٩. طرق التعلم وأساليب التعليم
– المحاضرات النظرية التي تقدم المعرفة الأساسية والتخصصية في مجال هندسة العمارة. – التطبيقات العملية في المراسم والمختبرات، حيث يطبق الطلاب المفاهيم النظرية ويكتسبون مهارات عملية. – المناقشات والجلسات الحوارية التي تشجع على تبادل الأفكار وتعزيز التفكير النقدي والتحليل. – استثمار التقنيات الحاسوبية والوسائل التقنية المتقدمة، مما يعزز تعلم الطلاب ويوفر لهم أدوات حديثة للتصميم والبحث.

١٠. طرق التقييم

- الامتحانات الفصلية والنهائية لتقييم فهم الطلاب للمقررات والمناهج الدراسية.
- الامتحانات القصيرة لقياس استيعاب الطلاب للمواد بشكل دوري.
- الاختبارات العملية التي تتيح للطلاب تطبيق المفاهيم والمهارات المكتسبة في بيئة عملية.
- المناقشات المفتوحة التي تسمح للطلاب بالمشاركة في الحوار وتبادل الأفكار لتقييم فهمهم وقدرتهم على التحليل والنقد.

١١. طرق التقييم

- الامتحانات الفصلية والنهائية لتقييم فهم الطلاب للمقررات والمناهج الدراسية.
- الامتحانات القصيرة لقياس استيعاب الطلاب للمواد بشكل دوري.
- الاختبارات العملية التي تتيح للطلاب تطبيق المفاهيم والمهارات المكتسبة في بيئة عملية.
- المناقشات المفتوحة التي تسمح للطلاب بالمشاركة في الحوار وتبادل الأفكار لتقييم فهمهم وقدرتهم على التحليل والنقد.

١٢. الهيئة التدريسية

أعضاء هيئة التدريس

الرتبة العلمية	التخصص	المتطلبات/المهارات الخاصة (ان وجدت)		اعداد الهيئة التدريسية	
	عام			ملاك	محاضر
استاذ مساعد	هندسة العمارة			١٠	
مدرس	هندسة العمارة			٢١	
مدرس مساعد	هندسة العمارة			١٧	

التطوير المهني

توجيه أعضاء هيئة التدريس الجدد

○ دورات طرائق التدريس ○ دورات التعليم المستمر	○ الدورات التدريبية ○ الندوات العلمية والورش والحلقات الدراسية

التطوير المهني لأعضاء هيئة التدريس

يتم تطوير البرنامج الأكاديمي من خلال تنفيذ خطط مدروسة تهدف إلى تحسين واقع البرنامج التعليمي وفق منهج واضح، وتشمل هذه الخطط:

– تطوير الكادر التدريسي: توفير فرص التدريب والتطوير المستمر لأعضاء هيئة التدريس لزيادة كفاءتهم وتنمية إمكاناتهم في التدريس والبحث.
– الاهتمام بالمناهج وأدواتها النظرية والتطبيقية: تحديث المناهج بشكل دوري لضمان مواكبتها لأحدث التطورات العلمية والتقنية، وتوفير أدوات تعليمية متطورة تتناسب مع احتياجات الطلاب.
– التعامل الناجح مع الطالب: التركيز على تطوير مهارات التواصل بين أعضاء هيئة التدريس والطلاب، والاستماع إلى احتياجات الطلاب وتقديم الدعم اللازم لهم، مما يسهم في تحسين تجربة التعلم.
– تقييم المخرجات التعليمية: اعتماد الطالب كأداة رئيسية لتقييم المخرجات التعليمية من خلال أدائه وتقدمه الأكاديمي، وما يمكن أن يحققه من نتائج إيجابية تعود بالنفع على المؤسسة التعليمية والمجتمع.
من خلال هذه الخطوات، يتم تحسين جودة البرنامج الأكاديمي وتعزيز دوره في تلبية احتياجات الطلاب والمجتمع.

١٣. معيار القبول

معيار القبول المركزي من وزارة التعليم العالي والبحث العلمي

١٤. أهم مصادر المعلومات عن البرنامج

- القوانين والتعليمات
- الاطلاع على آخر المستجدات والتوجيهات
- الانفتاح نحو البرامج المناظرة ومواكبتها باستمرار.

١٥. خطة تطوير البرنامج

ان وضع خطة لتطوير البرنامج الأكاديمي لقسم هندسة العمارة في جامعة الموصل يتطلب تحديد أهداف ورؤية واضحة، ووضع خطوات استراتيجية لتحقيق تلك الأهداف. تشمل هذه الخطة العناصر التالية:
١. تقييم الوضع الحالي: تحليل البرنامج الأكاديمي الحالي لتحديد نقاط القوة والضعف والفرص والتحديات.
٢. وضع أهداف تطويرية: تحديد أهداف تطويرية واضحة للبرنامج، مثل تحسين جودة التدريس، وتعزيز البحث العلمي، وزيادة مشاركة الطلاب في الأنشطة الأكاديمية.
٣. تحديث المناهج: مراجعة المناهج الدراسية وتحديثها لتكون متوافقة مع أحدث التطورات العلمية والتكنولوجية في مجال الهندسة المعمارية.
٤. تطوير الكادر التدريسي: توفير فرص التدريب والتطوير لأعضاء هيئة التدريس لتحسين مهاراتهم في التدريس والبحث العلمي.

٥. تحسين البنية التحتية: الاستثمار في تحسين المرافق والمختبرات والموارد التعليمية لتوفير بيئة تعليمية حديثة ومحفزة.

٦. تعزيز الشراكات: إقامة شراكات مع المؤسسات الصناعية والأكاديمية الأخرى لتعزيز تبادل المعرفة والخبرات وتوفير فرص تدريب للطلاب.

٧. تشجيع البحث العلمي: دعم البحوث العلمية التطبيقية والتعاون مع جهات خارجية لتوفير فرص للطلاب وأعضاء هيئة التدريس للمشاركة في مشاريع بحثية.

٨. تقييم الأداء: وضع آليات لتقييم أداء البرنامج الأكاديمي بانتظام، بما في ذلك تقييم الطلاب والخريجين وأعضاء هيئة التدريس.

٩. مشاركة الطلاب: تشجيع مشاركة الطلاب في عملية تطوير البرنامج من خلال استبيانات ومناقشات للتعرف على احتياجاتهم واقتراحاتهم.

١٠. التواصل المستمر: الاستمرار في التواصل مع خريجي القسم لمعرفة مدى استفادتهم من البرنامج وكيف يمكن تحسينه.

بتنفيذ هذه الخطوات، يمكن وضع خطة شاملة لتطوير البرنامج الأكاديمي لقسم هندسة العمارة في جامعة الموصل وتحقيق أهداف تعليمية عالية الجودة.اعتماداً على نتائج التحليل للبيانات يتم اعلام رئاسة القسم بالمقترحات والتوصيات التي توصلت اليها هيئة التدريس.

نماذج مختارة لوصف المقرر

معلومات المادة الدراسية					
Module Title	**Architecture Design and Graphic**			Module Delivery	
Module Type	Core			✓ Theory ✓ Lecture Lab Tutorial ✓ Practical ✓ Seminar	
Module Code	ARC111				
ECTS Credits	12				
SWL (hr/sem)	300				
Module Level	UGI		Semester of Delivery	1	
Administering Department	ARC		College	COE	
Module Leader	Ahmed Al-Fakhry		e-mail	ahmed.alfakhry@uomosul.edu.iq	
Module Leader's Acad. Title	Assist. Prof		Module Leader's Qualification	M.Sc	
Module Tutor	OMAR ADIL SABAH ALHIALY		e-mail	omar.sabah@uomosul.edu.iq	
Peer Reviewer Name	Reem Al-Othman Isra malallah aziz		e-mail	Reemalothman@uomosul.edu.iq esraamalallah@uomosul.edu.iq	
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules العلاقة مع المواد الدراسية الأخرى					
Prerequisite module		None	Semester		
Co-requisites module		None	Semester		
Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية					

Module Aims أهداف المادة الدراسية	• Theoretical part: Introduction, Primary Elements, Visual proportion of form, Primary shapes, Platonic solid, Regular and irregular forms, Transformation of form, Additive forms, Formal collisions of geometry, Articulation of form, Defining space with horizontal & vertical elements, Closure, Qualities of Architectural Space, Openings in space / Lighting, Spatial Relationships, Spatial Organizations, Circulation, Proportion and Scale, Practice/ Preliminary Presentation Ordering Principles, Practice/ Development Introduce students to the concept of Architecture Design and Graphic in its general and applied context, highlighting its role in the field of architecture. • Achieve a comprehensive understanding of Architecture Design and Graphic as an idea and its application in the context of architecture. • Understand the relationship between Architecture Design and Graphic and the art of architecture, with a focus on ways to develop Architecture Design and Graphic through architectural work. • Familiarize students with Architecture Design and Graphic, including their fundamentals, Additionally, students become acquainted with the details related to Architecture Design and Graphic, especially modern systems used in contemporary architectural buildings. • Explore a range of Architecture Design and Graphic • Open new horizons for students to explore architectural ideas. • Enhance the role of students and activate their participation by presenting reports on Architecture Design and Graphic, and buildings. These reports are discussed Architecture Design and Graphic • Bridging the Gap between academic theories and practical applications and explore the details of Architecture Design and Graphic in architectural buildings and understanding, helping students enhance their practical and theoretical skills in this field. • Inform students – by practice – about: • Architectural elements (point, line, plane, & volume) and elements of design (line, • direction, shape, size, texture, value, & color) to achieve Unity in design according to • design principles. • The concepts of mass & space in architectural design • Influence of structural principles on architectural composition • Influence of human scale and functions on architectural design • Local identity in architecture

Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• Identify the concept of Design and Graphic and its role in Architecture. • Understanding the relationship between Architecture Design, Graphic and art in architecture and ways to develop it. • Familiarizing students with Architecture Design and Graphic form. • Studying l architectural projects and their use of Architecture Design and Graphic. • Encouraging exploration of architectural ideas and Architecture Design and Graphic development. • Enhancing student roles through report presentations and discussions. • Linking academic theories with practical applications and providing hands-on exercises. • Encouraging active learning and collaborative work among students. • Effective communication with Architecture Design and Graphic. • Functioning effectively as a team member, providing leadership, collaboration, and goal achievement. • Encouraging active learning Architecture Design and Graphic and collaboration through group presentations showcasing students' skills and collective work. • Acquiring and applying new knowledge using Architecture Design and Graphic learning strategies. • Program skill goals: • Practicing exercises and small projects in design studios, Design work in the design • studio occupies the main part in the course with a significant role of high-quality. • architectural rendering in presenting results.
Indicative Contents **المحتويات الإرشادية**	• Graphic and the concept of advanced Architecture Design and its relationship to architecture. • The most important elements and principles of advanced Architecture Design and Graphic and their applications in contemporary global projects. • The important elements and principles of advanced Architecture Design and Graphic and its significant classifications. • Important elements and principles of advanced Architecture Design and Graphic materials and their applications in global projects. • Elements and principles of advanced Architecture Design and Graphic, with international examples.

Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	• Encouraging students' active participation through pre-lecture readings and class discussions about the important elements and principles of advanced Architecture Design and Graphic. • Promoting an interactive learning important elements and principles of advanced Architecture Design and Graphic by implementing reverse learning, where students explore and research the Architecture Design and Graphic, contemporary building elements, and new architectural design principles, leading to discussions and a deeper understanding of the subject matter. •

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	123	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	8
Unstructured SWL (h/sem)	177	Unstructured SWL (h/w)	11.8

الحمل الدراسي غير المنتظم للطالب خلال الفصل		**الحمل الدراسي غير المنتظم للطالب أسبوعيا**	
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	300		

Module Evaluation **تقييم المادة الدراسية**					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Report	2	5%	22,26	22,26
	(Day Sketch	1	10% (10)	9	3,6
	Fınal Presentatıon	10	50%	4,8,10,14,16,24,26,28,29,31	6,8,9,10,11,12,13,14
	Discussions&Analysis teams work	2	5%(10)	22,26	
Summative assessment	Midterm Exam(Day Sketch 1)	2 hr	20% (20)	31	
	Final Exam (Day Sketch2)	4	10% (10)	32	
Total assessment			100% (100 Marks)		

FIRST SEMISTER (Weekly Syllabus) **المنهاج الاسبوعي**		
Gg	Material Covered	
Week 1	General introduction	General principles.
Week 2	Engineering tool, elements	Architectural Compositions.
Week 3	Architectural design principles	Pencils Techniques.
Week 4	Point	Types of Lines (one dimension) Fınal Presentatıon
Week 5	Line (one dimension) linear elements	Day sketch.
Week 6		Engineering shapes (Circle, Square, Triangle) …etc.
Week 7	Plan(2D) walls, roofs, floors	Regular & Irregular in practice.
Week 8	Volumes components of volume, volume dual.	Presentation in graphics. Fınal Presentatıon
Week 9	Form (3d).	Day sketch.
Week 10	Properties of form.	Texture in Architecture &Materials. Fınal Presentatıon
Week 11	Primary shapes, primary solids.	Light Degrees between (white, gray & black)
Week 12	Irregular shapes, transformation of form	Use Colors between Art composition & Engineering shapes.

Week 13	Method of a joining forms	Collage.
Week 14	Types of compositions	Planes (two dimensions) Fınal Presentatıon.
Week 15	Edges, Articulation of forms	Day Sketch.
Week 16	Engineering Volumes (three dimensions).	Fınal Presentatıon

SECOND SEMISTER (Weekly Syllabus)

المنهاج الاسبوعي

Week	Material Covered	
Week 17	Form & space, surface& edge	Dimensions & Architectural design
Week 18	Functional analysis in Architecture, organization, circulation, proportion	The relation between shape & space.
Week 19		Indoor & outdoor Function.
Week 20	Residential function	Residential Use ant its concentrates.
Week 21	Small house design	Day Sketch.
Week 22	Report , Discussions& Analysis team's work	Functional Analysis of house
Week 23	Indoor & outdoor movement	Bedrooms, living rooms, kitchens, Bath rooms.
Week 24	Vertical movement	Human Scale. Fınal Presentatıon
Week 25	Mass & outdoor Environment	The Relation between Human Scale & Architecture.
Week 26	Report, Discussions& Analysis team's work	Furniture design. Fınal Presentatıon
Week 27	Furniture	Day Sketch.
Week 28	Plans	Plans drawing Fınal Presentatıon
Week 29	Elevations	Elevations drawing & its details. Fınal Presentatıon
Week 30	Sections	Sections Drawing.
Week 31	Pre. Fınal Presentatıon, Exam	The Relation between indoor & outdoor functions in site plan .

Week 32	Site plan& land Scape Design	3D Model Fınal Presentatıon & Day Sketch.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	- Architecture, Form, Space and Order, Franic Ching, Van Nostrand Reinhold Company, New York, 1996	No
Recommended Texts	● "Sources of architectural form", Manchester University Press, MANCHESTER and NEW YORK-USA) ● (Gelernter, M. "Sources of architectural form", Manchester University Press, MANCHESTER and NEW YORK-USA) ● The Art of Color and Design, Maitland Graves, McGraw Hill Book Com. Inc., New York, 1951	No
Websites		

Grading Scheme
مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**Descriptive geometry & Engineering Drawing**			Module Delivery	
Module Type	S			☐ Theory ☒ Lecture ☒ Lab ☐Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC112				
ECTS Credits	٦				
SWL (hr/sem)	150				
Module Level		UGI	Semester of Delivery		1
Administering Department		ARC	College	COE	
Module Leader	Reem Ali Talib Alothman Aseel Ibrahim Khalil		e-mail	reemalothman@uomosul.edu.iq Aseel.ibrahim@uomosul.edu.iq	
Module Leader's Acad. Title		Teacher	Module Leader's Qualification		Ph.D.
Module Tutor	Mafaz Tariq		e-mail	E-mail	
Peer Reviewer Name		Name	e-mail	E-mail	
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules العلاقة مع المواد الدراسية الأخرى					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		

Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**	
Module Aims **أهداف المادة الدراسية**	• Descriptive Geometry provides training of the students' intellectual capability of space perception and spatial reasoning. • Training the student's mind to visualize imaginary objects and represent them. • The subject aims at developing the skills needed for documenting designs using drawings and for performing graphical analysis of two dimensional and three-dimensional problems. • This course develops the ability of the students to understand geometric projection and learn the types of geometric projection. Students will learn how to use deferent drawing scales. The course develops the basic engineering drawing skills in one plane of the students and use drawing tools.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• Remember and understand the most ways to draw different shapes. • Comparing the different methods of drawing. • Describe different ways that are used for drawing the same object. • Naming and describing the different scales. • Carrying out the final 2d and 3d drawing of any project. • The use of different architectural drawing tools. • Benefit from the ways of drawing in engineering and architectural work after graduation.
Indicative Contents **المحتويات الإرشادية**	• Indicative content includes the following. • Introducing the engineering drawing subject. • How to draw different shapes. • How to draw 3d models. • How to draw projection.
rning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through practical sessions and homework.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	٩٣	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	٥٧	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	١٥٠		

Module Evaluation تقييم المادة الدراسية					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	1	10% (10)	5	
	Projects / Lab. Class work	١٢	15% (10)	1,3,7,10,12, 14	
	Projects / Homework	١٢	15% (10)	2,4,6,9,11,13,15	
Summative assessment	Midterm Exam	2 hr	20% (20)	8	
	Final Exam	3 hr	40% (40)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	Material Covered
Week 1	Monge’s Orthographic Projection. Defining points for Monge’s descriptive geometry analysis
Week 2	Defining lines for Monge’s descriptive geometry analysis
Week 3	Solve for various projections (1) such as: True size and shape projections, True angles, Distances between points and lines.
Week 4	Solve for various projections (2) such as: True size and shape projections, True angles, Distances between points and lines.

Week 5	Midterm exam
Week 6	Auxiliary Views. Defining principal views relative to spatial analysis and expanding the principles of basic views to auxiliary view application
Week 7	Introduction and definition of engineering drawing for students, including the following: Learn about engineering tools and how to use them. * Types of pens used in drawing geometric shapes. * Billboard layout and addresses field numbers. * How to deal with the engineering board and the engineering board and how to install it on the board. Types of lines in engineering drawing: visible lines, hidden lines, center lines, dimension lines, cutting lines.
Week 8	Various engineering operations: * Introducing the drawing scale and its types: civil, mechanical, zoom-in and zoom-out scale. Teach students how to apply and draw the following engineering operations: * Drawing a straight line parallel to a known straight line from a point outside it. * Drawing a perpendicular bisector of a known straight line Draw tangents and learn about tangent points and how to locate them
Week 9	Various engineering operations * Draw a known arc so that it touches two known lines between which there are angles: right, acute and obtuse. * Finding the center of a known arc tangent to a known straight line and a known circle arc, inner circle arcs, and outer circle arcs. * Finding the center of a known arc that touches the arc of a known circle and passes through a point outside it. Draw the inverted shape
Week 10	Quiz
Week 11	Perpendicular projection theory of objects * Types of projection in drawing and its practical importance * Projections with vertical rays * Types of projections resulting from vertical projection and approved in the projection of various engineering objects

	The front, vertical, right side and left side view * How to arrange and draw the projections required for any object on the drawing board
Week 12	Drawing three-dimensional figures * Types of three-dimensional figures and their practical benefits * Isometric
Week 13	Linking the given projections with the process of imagining and drawing the analogous body Drawing axes of measurement and how to put dimensions on them
Week 14	Drawing the deleted third position of the body * How to deduce the omitted location from two known locations of the body Draw the omitted location of objects with inclined surfaces
Week 15	Geometric Sections * Rules for cutting objects * Marking the cut areas and leaving blanks and uncut parts Abnormal areas during cutting that were not marked: the oblique and vertical supports and appendages in the body
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	Material Covered
Week 1	Using the engineering board and install the sheet on the board and use engineering drawings tools.
Week 2	Drawing: visible lines, hidden lines, center lines, dimension lines, cutting lines.
Week 3	Drawing a straight line parallel to a known straight line from a point outside it. Drawing a perpendicular bisector of a known straight line
Week 4	Drawing tangents
Week 5	Quiz
Week 6	Section drawing
Week 7	Arrange and draw the projections required for any object on the drawing board
Week 8	Mid Term Exam
Week 9	Drawing three-dimensional figures
Week 10	Drawing axes of measurement and put dimensions on them
Week 11	Linking the given projections with the process of imagining and drawing the analogous body
Week 12	Drawing the deleted third position of the body
Week 13	Draw the omitted location of objects with inclined surfaces
Week 14	Marking the cut areas and leaving blanks and uncut parts
Week 15	Abnormal areas during cutting that were not marked: the oblique and vertical supports and appendages in the body
Week 16	Final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	-	No
Recommended Texts	Engineering Drawing and Graphic Technology, By	No

	French & Vierk, Twelve tion.	
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C - Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**Art & Architecture**			Module Delivery	
Module Type	C			☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐Practical ☒ Seminar	
Module Code	ARC 113				
ECTS Credits	٤				
SWL (hr/sem)	١٠٠				
Module Level		UGI	Semester of Delivery		1
Administering Department		ARC	College	COE	
Module Leader	Khawola faith mahmoud		e-mail	Khawola.mahmoud@uomosul.edu.iq	
Module Leader's Acad. Title		Assist. prof	Module Leader's Qualification		Ph.D.
Module Tutor	anwar meshal shareef		e-mail	anwar.meshal@uomosul.edu.iq	
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules العلاقة مع المواد الدراسية الأخرى					
Prerequisite module	Architecture Design and Graphic (1)		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية					
Module Aims	• Introduction to Art and Architecture: The aim of this module is to provide students with a broad understanding of the relationship between art and				

أهداف المادة الدراسية	architecture, and the relations between architecture and other sciences, introducing key concepts and terminology in the field. • Elements of Design: The aim of this module is to introduce students to the fundamental elements of design and how they apply it to both art and architecture. Students will develop an understanding of how these elements contribute to the aesthetics and functionality of architectural design. • Principles of design: : The aim of this module is to introduce students to the Principles of design and Identify and distinguish how the principles of design apply in architecture . Students will develop an understanding of how these Principles contribute to the aesthetics and functionality of architectural design. • Drawing and Visualization: This module aims to develop students' drawing skills specifically for architectural representation. The goal is to enable students to effectively communicate their design ideas through drawings and visualizations. • Space and Scale: This module aims to provide students with an understanding of space and scale in architectural design. Students will learn how to create a sense of space and manipulate the scale in their designs to achieve desired effects. • Architectural composition, types of geometric forms' connections, articulation of forms and corners and their application in art and architecture • Architectural trends and movements in art and architecture, (art nouveau, cubism). • Historical Architectural Styles: This module aims to familiarize students with the major architectural styles throughout history, from ancient to contemporary, enabling them to recognize and analyze different architectural styles and their characteristics. • Materials and Construction: The aim of this module is to introduce students to different construction materials and their applications in architecture. Students will gain knowledge about the properties and characteristics of materials, enabling them to make informed material choices in their designs. • into how technology is shaping the future of architecture and Interior Design: This module aims to introduce students to the principles of interior design within architectural spaces. Students will learn how to create functional and aesthetically pleasing interiors, considering lighting, furniture, and material choices. • Landscape Design and Site Planning: The aim of this module is to provide students with an understanding of landscape design principles and their role in architectural projects. Students will learn how to integrate buildings with the surrounding landscape to create harmonious and sustainable designs. • Architectural Representation: This module aims to develop students' skills in architectural representation, including models, renderings, and digital visualization techniques. The goal is to equip students with effective communication tools to present their design ideas.

	• Emerging Technologies and Future Trends: This module aims to explore the impact of emerging technologies on architecture and to discuss future trends in the field. Students will gain insights into challenges and opportunities it presents.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• Introduction to Art and Architecture: • Understand the relationship between art and architecture. • Use key concepts and terminology related to art and architecture. • Historical Architectural Styles: • Differentiate between major architectural styles throughout history. • Analyze the characteristics and influences of various architectural styles. • Elements of Design: • Apply design principles to create aesthetically pleasing and functional architectural designs. • Drawing and Visualization: • Communicate design ideas effectively through drawings and visualizations. • Space and Scale: • Manipulate spatial qualities and scale in architectural design. • Materials and Construction: • Evaluate construction materials used in architecture. • Make informed material choices for architectural applications. • Sustainable Design and Green Architecture: • Incorporate sustainable design principles and practices in architectural design. • Apply environmentally friendly materials and energy-efficient strategies. • Interior Design: • Apply principles of interior design within architectural spaces. • Landscape Design and Site Planning: • Integrate buildings with the surrounding environment through landscape design. • Architectural Representation: • Present architectural designs effectively using appropriate representation methods. • Emerging Technologies and Future Trends:

	• Understand the impact of emerging technologies on architecture. • Evaluate and discuss future trends in architecture.
Indicative Contents **المحتويات الإرشادية**	the relationship between art and architecture, major historical architectural styles, elements of design in architecture, drawing and visualization skills, space and scale in architectural design, materials and construction, urban design and planning, sustainable design and green architecture, architectural history, building structures, interior design principles, landscape design and site planning, architectural representation techniques, and emerging technologies and future trends in architecture. These condensed indicative contents provide an overview of the essential topics and concepts that will be covered in the curriculum on art and architecture

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	٦٧	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	4.7
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	١٠٠		

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	4, 13	LO #3, 4, 5, and 6
	Assignments	4	10% (10)	4, 13	LO #3, 4, 5, and 6
	Projects / Lab.	١	10% (10)		
	Exam		10%(10)		
Summative assessment	Midterm Exam	1 hr	10% (10)	8	1,2,3,4,6,14

	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		
Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري					

Week	Material Covered
Week 1	• Introduction to Art and Architecture • Overview of the course and its objectives • Understanding the basic principles of art and architecture • Exploring the relationship between art and architecture • Exploring the relationship between architecture and other sciences
Week 2	Elements of Design • Introduction to the elements of design (line, shape, form, color, texture, etc.) • Understanding how these elements apply to both art and architecture. • Examples of how artists and architects utilize these elements in their work.
Week 3	• Principles of design • Introduction to the Principles of design (identical , similarity, contrast, Gradation, dominance, Balance, unity, etc.). • Understanding how these Principles apply to architecture. • Identify and distinguish how the principles of design apply in architecture
Week 4	• Drawing Fundamentals for Architects • Importance of drawing skills in architecture • Basic drawing techniques and exercises for architectural representation • Introduction to architectural drafting tools and conventions
Week 5	• Understanding Space and Scale, proportion • Exploring the concepts of space and scale in art and architecture • Techniques for creating a sense of space in architectural design.

	• Examining how artists play with scale in their works
Week 6	• Architectural composition • types of geometric forms' connections • articulation of forms and corners and their application in art and architecture
Week 7	• Architectural trends and movements in art and architecture, (art nouveau, cubism).
Week 8	• Mid Term Exam
Week 9	• Color Theory and Application • Basics of color theory and its significance in art and architecture • Exploring color palettes and their emotional impact on architectural spaces • Case studies of buildings that effectively use color in their design.
Week 10	• Architectural Styles: From Classical to Contemporary • Introduction to various architectural styles throughout history • Overview of classical architecture (Greek and Roman) • Exploration of modern and contemporary architectural styles
Week 11	• Introduction to Interior Design • Exploring the principles of interior design in architectural spaces • Understanding the role of lighting, furniture, and materials in interior design • Case studies of well-designed interiors
Week 12	• Landscape Design and Site Planning • Introduction to landscape design principles • Understanding the relationship between buildings and their surroundings • Case studies of landscape architecture projects
Week 13	• Architectural Representation: Models and Visualization • Introduction to architectural models and their role in design • Exploring different visualization techniques (renderings, digital modeling, etc.) • Understanding the importance of effective communication in architectural representation
Week 14	• Sustainable Design and Green Architecture

	• Introduction to sustainable design practices in architecture • Exploring environmentally friendly materials and energy-efficient strategies • Case studies of green buildings and their sustainable features
Week 15	• Future Trends in Architecture • Exploring emerging technologies and their impact on architecture • Trends in sustainable design, smart cities, and adaptive reuse • Discussion on the future challenges and opportunities in the field of architecture
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	• Architecture, Form, Space and Order / Francis Ching/1996 • The Art of Color and Design / Maitland Graves/1951 • Launching Imagination / Mary Stewart/2006 • **مباديء في الفن والعمارة /شيرين احسان شيرزاد/١٩٨٥**	Yes
Recommended Texts	• "A Global History of Architecture" by Francis D. K. Ching, Mark M. Jarzombek, and Vikramaditya Prakash • "The Story of Art" by E.H. Gombrich • "Architecture: Form, Space, and Order" by Francis D. K. Ching • "Architecture: A World History" by Daniel Borden, Jerzy Elzanowski, and Joni Taylor • The Metropolitan Museum of Art's website (www.metmuseum.org) for online exhibits and resources on art and architectural history. (www.getty.edu/education) for educational resources on art and architecture. • The National Gallery of Art's website (www.nga.gov) for virtual tours and educational materials on art history. • Architectural Review (www.architectural-review.com) • Architectural Digest (www.architecturaldigest.com) • Journal of Architectural Education (www.tandfonline.com/toc/uarc20/current)	No
Wbsites	• The Artstor Digital Library (www.artstor.org) for high-quality images of artworks, architectural drawing	

	• s, and historical photographs. • Google Arts & Culture (artsandculture.google.com) for virtual tours, high-resolution images, and educational resources on art and architecture. • Coursera (www.coursera.org) and edX (www.edx.org) offer online courses on art history, architectural design, and related topics. • The Architectural Association School of Architecture (www.aaschool.ac.uk) offers online courses and lectures on architecture and design.

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

Module Information **معلومات المادة الدراسية**					
Module Title	**Arabic Language**			Module Delivery	
Module Type	E			☒ Theory	
Module Code	ARC 114			☒ Lecture	
ECTS Credits	٢			☐ Lab	
SWL (hr/sem)	٥٠			☐ Tutorial ☐Practical ☒ Seminar	
Module Level	UGI		Semester of Delivery	1	
Administering Department	ARC		College	COE	
Module Leader	Nedhal Al Jarjary		e-mail		
Module Leader's Acad. Title	Assist. Lecturer		Module Leader's Qualification	MSc.	
Module Tutor			e-mail	anwar.meshal@uomosul.edu.iq	
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module			Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	. This course aims to define students of the importance of Arabic in the university study by discussing several vocabularies and concepts used in university teaching s phase to raise awareness of the importance of using the 'within the bachelor correct language rules in writing reports and lectures.				

Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	**تعريف الطلاب بأهمية اللغة** **تعريف الطلاب بأهمية اللغة** **مدخل عام نظري استرجاعي لتقسيمات اللغة العربية** **مدخل عام نظري استرجاعي لتقسيمات اللغة العربية** **التعريف بمكونات الجملة وتقسيم الكلام** **تعريف الطلاب بأهمية اللغة** **عرض أنواع الجمل في اللغة العربية والتنبيه على الأساليب الإنشائية** **عرض أنواع الجمل في اللغة العربية والتنبيه على الأساليب الإنشائية** **البدء بمعمار النحو العربي وكيف تنشأ النصوص مع عرض إشكالية اللفظ والمعنى** **البدء بمعمار النحو العربي وكيف تنشأ النصوص مع عرض إشكالية اللفظ والمعنى** **الانطلاق غلى الحديث عن الشكل والمضمون اعتمادا على الثنائية الضدية المستقاة من فلسفة الواقع** **الانطلاق غلى الحديث عن الشكل والمضمون اعتمادا على الثنائية الضدية المستقاة من فلسفة الواقع** **مدخل لدراسة الشعر وعرض بعض آلياته** **مدخل لدراسة الشعر وعرض بعض آلياته**
Indicative Contents **المحتويات الإرشادية**	

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	٦٧	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	4.7
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	٥٠		

Module Evaluation

تقييم المادة الدراسية

As	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome

Formative assessment	Quizzes	2	10% (10)	4, 13	LO #3, 4, 5, and 6
	Assignments	4	10% (10)	4, 13	LO #3, 4, 5, and 6
	Projects / Lab.				
	Exam				
Summative assessment	Midterm Exam	1 hr	10% (10)	8	1,2,3,4,6,14
	Final Exam	3 hr	70% (70)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	**التعريف بالمصطلحات الأدبية كالإيقاع والعروض ووحدة البيت الشعري ووحدة القصيدة العربية ونظامها العمودي.**
Week 2	**التعريف بالمصطلحات الأدبية كالإيقاع والعروض ووحدة البيت الشعري ووحدة القصيدة العربية ونظامها العمودي**
Week 3	**نماذج أدبية**
Week 4	**نماذج أدبية**
Week 5	**تجاوز نظام الشعر العمودي الى الشعر الحر وعرض فكرة التحول وربطها مع نظام البناء القديم والحديث من خلال مصطلحي الكلاسيكي والحداثوي**
Week 6	**تجاوز نظام الشعر العمودي الى الشعر الحر وعرض فكرة التحول وربطها مع نظام البناء القديم والحديث من خلال مصطلحي الكلاسيكي والحداثوي**
Week 7	**سيمياء العنوان وعده مدخلا مهما في نقد التصاميم المعمارية**
Week 8	Mid Term Exam
Week 9	**عرض التكرار بوصفه آلية من آليات بناء النص الأدبي**
Week 10	**عرض التكرار بوصفه آلية من آليات بناء النص الأدبي**
Week 11	**التمييز بين مصطلحي التكرار والتوازي وبيان دور التوازي في بناء النص**
Week 12	**التمييز بين مصطلحي التكرار والتوازي وبيان دور التوازي في بناء النص**
Week 13	**السخرية والتهكم مفهومان أدبيان وكيف يدخلان في الفن المعماري نقدا وتلقيا**

Week 14	السخرية والتهكم مفهومان أدبيان وكيف يدخلان في الفن المعماري نقدا وتلقيا
Week 15	مفهوم المتلقي من نظرية الاستقبال لياكومبسن
Week 16	Final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts		
Recommended Texts		
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**Mathematics (1)**			Module Delivery	
Module Type	B			☒ Theory ☐ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 115				
ECTS Credits	4.0				
SWL (hr/sem)	100				
Module Level	UGI	Semester of Delivery	1		
Administering Department	ARC	College	COE		
Module Leader	Tuqa Waleed Ahmed	e-mail	new.matrix242@uomosul.edu.iq		
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	M.SC.		
Module Tutor	Mohammed Al Jawahery	e-mail	mohammed.aljawahery@uomosul.edu.iq		
Peer Reviewer Name		e-mail			
Scientific Committee Approval Date		Version Number	1.0		
Relation with other Modules العلاقة مع المواد الدراسية الأخرى					
Prerequisite module	None	Semester			
Co-requisites module	None	Semester			
Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية					
Module Aims أهداف المادة الدراسية	• Provide the fundamental concepts for elementary mathematics. • Use mathematical functions like trigonometric functions and application of derivatives to solve some Engineering problems.				

Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• At the end of this course, students will have gained knowledge of the Basic 2D Curves drawing using shifting properties. • Understanding the concepts of limits and continuity. • Being able to apply the differentiation to solve Engineering problems. • Learning how to use the power, product, quotient and chain rule to differentiate algebraic trigonometric functions. • Recognizing different types of matrices and their properties. • Applying matrix operations to solve system of linear equations.
Indicative Contents **المحتويات الإرشادية**	Indicative content includes the following. Prerequisites for calculus, coordinates, and graphs in the plane. Slope and Equations for lines, functions, and their graphs. Shifts, circles, and parabolas. A review of trigonometric functions. [15 hrs] Limits and continuity, introduction to limit, the sandwich theorem and $\frac{\sin\theta}{\theta}$, limits involving infinity, continuous functions. [15 hrs] Derivatives, slopes, tangent lines, and derivatives. Differentiations rules, derivatives of trigonometric functions. The chain rule, implicit differentiation, and fractional powers. [15 hrs] Applications of derivatives, related rates of change. maxima, minima, curve sketching with y' and y''. graphing rational functions, asymptotes, optimization. Types of Matrices, operations sum, multiplication by scalar, multiplication between two matrices, Determinants, The adjoin of Matrix, inverse of Matrix, Solving systems of linear equation using Matrices. [15 hrs]
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	78	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	5
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	22	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	1.46

Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	100

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	4	30% (30)	4,7,10and15	LO #1, 2,3 and 4
	Assignments	5	10% (10)	3,9,11,13, and14	LO # 1-6
	Projects / Lab.				
	Report				
Summative assessment	Midterm Exam	1 hr	10% (10)	9	LO # 1-4
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Types of matrices, operations, sum, multiplication by scalar and multiplication between two matrices.
Week 2	Determinants, the adjoint and the inverse of matrix.
Week 3	Solving systems of linear equations using matrices.
Week 4	Prerequisites for calculus, coordinates, and Graphs in the plane,
Week 5	Slope and equations for lines, functions, and their graphs.
Week 6	Shifts, circles, parabolas, and a review of trigonometric functions.
Week 7	Introduction to limits.
Week 8	The sandwich theorem and $\frac{\sin\theta}{\theta}$.
Week 9	Limits involving infinity and continuous functions.
Week 10	Derivatives, slopes, and tangent lines.
Week 11	Differentiation rules and derivatives of trigonometric functions.

Week 12	The chain rule, implicit differentiation, and fractional powers.
Week 13	Applications of derivatives and related rates of change.
Week 14	Maxima, minima, and curve sketching with y' and y''.
Week 15	Graphing rational functions, asymptotes, and optimization.
Week 16	Preparatory week before the final exam.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Thomas__Calculus_11th_Edition by Thomas.	No
Recommended Texts	Calculus and Analytic Geometry 1 by Purcell,1972.	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C - Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Democracy and Human Rights**			Module Delivery	
Module Type	E			☒ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 116				
ECTS Credits	٢				
SWL (hr/sem)	٥٠				
Module Level		UGI	Semester of Delivery		1
Administering Department		ARC	College		COE
Module Leader	Shatha jajan		e-mail		
Module Leader's Acad. Title		Assistant lecturer	Module Leader's Qualification		MSc
Module Tutor			e-mail		
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		None
Co-requisites module	None		Semester		None
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	• The aim of studying the democracy and human rights topics is to:				

	• Understand the concept of human rights and explore their sources, including international, regional, national, and religious sources. • Define administrative corruption, explore its types, and understand its detrimental effects on society. Study methods to combat administrative corruption and promote transparency, accountability, and good governance. • Trace the historical development and evolution of human rights, examining key milestones and movements that have shaped the modern understanding of human rights. • Differentiate between different categories of human rights, including civil and political rights, economic and social rights, and environmental, cultural, and developmental rights. • Explore legal, institutional, and societal guarantees to prevent human rights violations, including guarantees of human rights in Islam, national-level protections, and international safeguards. • Comprehend the concept of democracy, including its principles, values, and various forms of democratic governance such as direct, semi-direct, indirect, and digital democracy. • Overall, studying these topics aims to develop a comprehensive understanding of human rights, democracy, and combating corruption, empowering individuals to actively promote and protect human rights and democratic values in society.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• After these module aims, students should be able to: • Demonstrate a comprehensive understanding of the concept of human rights and their sources, including international, regional, national, and religious sources. • Identify and explain the fundamental characteristics of human rights, such as universality, indivisibility, interdependence, and inalienability. • Analyze the historical emergence and evolution of human rights, including key milestones and movements that have shaped their development. • Differentiate between different categories of human rights, including civil and political rights, economic and social rights, and environmental, cultural, and developmental rights. • Evaluate and apply legal, institutional, and societal guarantees to prevent human rights violations, considering guarantees in Islam, at the national level, and within the international framework. • Understand and discuss the concept of democracy, including its principles, values, and different forms of democratic governance.

	• Evaluate the Islamic stance on democracy and engage in critical analysis of the strengths and weaknesses of the democratic system. • Recognize and assess the impact of administrative corruption on society and propose methods to combate and prevent corruption in administrative systems. • Demonstrate critical thinking skills by analyzing and evaluating different perspectives on human rights, democracy, and corruption. • Apply acquired knowledge and skills to promote and protect human rights, democracy, and good governance in personal, professional, and civic contexts. • Overall, students should have a solid understanding of democracy and human rights, democracy, and corruption issues, and be able to apply this knowledge to contribute to the advancement of human rights and democratic values in society.
Indicative Contents **المحتويات الإرشادية**	The indicative content includes: 1. Definition and sources of democracy and human rights (international, regional, national, religious). [3h] 2. Characteristics of democracy and human rights: universality, indivisibility, interdependence, inalienability. [3h] 3. Emergence and evolution of human rights: historical development, key milestones, influential movements. [3h] 4. Types of human rights: civil and political, economic and social, environmental, cultural, and developmental. [3h] 5. Guarantees to prevent human rights violations: legal, institutional, societal safeguards, Islamic guarantees, national and international levels. [3h] 6. Concept of democracy: principles, values, forms of governance (direct, semi-direct, indirect). [3h] 7. Islamic stance on democracy: compatibility, strengths, weaknesses. [3h] 8. Critique of the democratic system: analysis of strengths and weaknesses. [3h] 9. Administrative corruption: definition, types, societal impact. [3h] 10. Methods to combat administrative corruption. [3h]
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	• When it comes to learning and teaching strategies for a human rights module, there are several approaches can be taken to enhance understanding and engagement. Here are some effective strategies:

	• Interactive Discussions: Encourage students to actively participate in discussions, debates, and group activities. This promotes critical thinking, allows for different perspectives to be shared, and fosters a deeper understanding of human rights issues. • Case Studies: Present real-life case studies that highlight human rights violations or achievements. Analyzing these cases helps students apply theoretical concepts to practical situations and develops their problem-solving skills. • Research Projects: Assign research projects on specific human rights topics or issues. This encourages independent learning, critical analysis, and the development of research skills. • Collaborative Learning: Foster collaboration among students through group projects or assignments. This encourages teamwork, peer learning, and the exchange of diverse perspectives. • Assessment Variety: Use a variety of assessment methods, including essays, presentations, debates, and quizzes, to assess students' understanding of human rights concepts and their ability to apply them to real-world situations.

Student Workload (SWL) **الحمل الدراسي للطالب**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	٣٢	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	2.3
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	١٨	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	1.2
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**			

odule Evaluation **تقييم المادة الدراسية**					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #2, 4, 6 and 8
	Assignments	2	10% (10)	3, 5, 8, 11, 13	LO # 1, 3, 7, 6, 9 and 10

	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO # 2,4,5,7,9and 10
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Definition of human rights and sources of rights (international sources / regional sources / national sources / religious sources).
Week 2	Characteristics of human rights.
Week 3	The emergence and evolution of human rights.
Week 4	Types of human rights / civil and political rights. Economic and social rights. Environmental, cultural, and developmental rights.
Week 5	Guarantees to prevent human rights violations / guarantees of human rights in Islam.
Week 6	Guarantees for the protection of human rights at the national level.
Week 7	Guarantees of human rights at the international level.
Week 8	The concept of democracy.
Week 9	Characteristics of a democratic system.
Week 10	Forms of democratic governance (direct democracy / semi-direct democracy / indirect democracy).
Week 11	Digital democracy / definition and advantages and disadvantages of digital democracy / manifestations of digital democracy.
Week 12	The Islamic stance on democracy.
Week 13	Critique of the democratic system.
Week 14	Administrative corruption / definition and types.

Week 15	Methods to combat administrative corruption.
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	**ضمانات حقوق الانسان وحمايتها وفقا للقانون الدولي والتشريع الوطني / نبيل عبد الرحمن ناصر الدين**	No
Recommended Texts	**الديمقراطية وحقوق الانسان / د. امير عبد العزيز**	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	**امتياز**	90 - 100	Outstanding Performance
	B - Very Good	**جيد جدا**	80 - 89	Above average with some errors
	C - Good	**جيد**	70 - 79	Sound work with notable errors
	D - Satisfactory	**متوسط**	60 - 69	Fair but with major shortcomings
	E - Sufficient	**مقبول**	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	**راسب (قيد المعالجة)**	(45-49)	More work required but credit awarded
	F – Fail	**راسب**	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**Architectural Design& Graphic (2)**			Module Delivery	
Module Type	Core			☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 121				
ECTS Credits	12				
SWL (hr/sem)	٣٠٠				
Module Leader	Ahmed Al-Fakhry	e-mail	ahmed.alfakhry@uomosul.edu.iq		
Module Leader's Acad. Title	Assist. Prof	Module Leader's Qualification	M.Sc		
Module Tutor		e-mail			
Peer Reviewer Name	Reem Al-Othman	e-mail	Reemalothman@uomosul.edu.iq		
Scientific Committee Approval Date		Version Number	1.0		
Prerequisite module	Architectural design (3)			Semester	
Co-requisites module	None			Semester	
Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية					
Module Aims أهداف المادة الدراسية	• This course aims to teach students the basic principles of architectural design and presentation through introduces the student to methods of graphic representation essential to design professionals in the built environment. Design representation is taught both as a craft and as a method of thinking.				

	• Types of representation include freehand drawing (drawing from observation and from the imagination); analytic diagramming (the two-dimensional representation of an idea or process); • illustration graphics (symbolic representation), and technical drafting (conventions of plan, section, elevation and axonometric). Students will be exposed to analog (pencil-and-paper) and digital tools. • The method of instruction will emphasize application of representation skills in response to project assignments.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• The purpose of this course also is to provide students with the necessary scientific and logical justification for the studied architectural as well as the exercises on which they depend. • General skills and other skills related to portability (Personal employment and development). • Teamwork within the group. Personal development through ethical values in dealing with, and respect for the other opinion. • Personal development through building the general and professional cultural background of the profession. Interaction with teaching staff as a guide educational and administrative educational process.
Indicative Contents **المحتويات الإرشادية**	• Determine Creative thinking to apply design principles of composition and to deal with the level of mass and architectural space. Introduce opinions and deduce the nature of the application of design principles and the use of design elements in the studied architectural practice that achieve a collective agreement. • Self-learning skill through self-reliance in the conclusion of solutions to design problems and knowledge. Based on the students' criticism and follow-up by the teaching staff to ensure that the talents and abilities of the students are exploited and utilized to achieve the objectives of the educational program.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	123	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	8
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	177	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	11.8
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	**٣٠٠**		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
As Formative assessment Summative assessment	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome	As
	Report	2	5%	22,26	Formative assessment
	(Day Sketch	1	10% (10)	9	6,8,9,10,11,12,13,14
	Fınal Presentatıon	10	50%	4,8,10,14,16,24,26, 28,29,31	
	Discussions&Analysis teams work	2	5%(10)	22,26	5,7,8,9,10,11, 12,13,,14
	Midterm Exam(Day Sketch 1)	2 hr	20% (20)	31	Summative assessment
Summative assessment Total assessment	Final Exam (Day Sketch2)	4	10% (10)	32	1,2,3,4,6,14
	100% (100 Marks)				Total assessment
As			Time/Number	Weight (Marks)	Week Due

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

Week	Material Covered

Week 1	Human Scale: Standardization and study of the reality of the activities position, a study of the chosen space and its standard dimensions. It represents the joint between the abstract state and other values in architecture. Understand the concept and its applications and distinguish between the scale in the residential building and public building.
Week 2	Submission
Week 3	Study the space or place to perform the effectiveness according to the human scale, recognition of standard dimensions Standard for the space of activities and furniture required for each of the basic human activities of sleep, food, living and kitchen, the use of expressive expressions of that furniture and the absorption of their sizes in relation to the human.
Week 4	Homework
Week 5	Application through a realistic study of interior space, design development with a focus on studying space, functional and expressive requirements of it, the introduction of color and texture, a study of furniture and others.
Week 6	Homework
Week 7	Definition of the style of presentation facades and sections and show the architectural project integrated based on the elements and principles of design at the level of the configurations of three dimensions, and the volume and mass configuration of the basic human functions and studio apartment for one person.
Week 8	Priemer Submission
Week 9	The specific project of housing unit (studio) for one person and with multi-function.
Week 10	Discussion
Week 11	Discussion
Week 12	Discution , Pre-final submission
Week 13	Final submission
Week 14	Recognition of the method of abstraction, integration, and overlay in the design of the stable volumetric formations through a short project depends on one of the light buildings with a visual character, for example, designs for external elements such as fountains, monuments, bus stations, stalls ... etc.
Week 15	Submission
Week 16	Human Scale: Standardization and study of the reality of the activities position, a study of the chosen space and its standard dimensions. It represents the joint between the abstract state and other values in architecture. Understand the concept and its applications and distinguish between the scale in the residential building and public building.
Learning and Teaching Resources **مصادر التعلم والتدريس**	

	Text	Available in the Library?
Required Texts	Form, Space, Francis Ching, 1. Introduction to Architecture Design, 2. Francis ching Pattern Language. 3.	No
Recommended Texts		No
Websites		

Grading Scheme

خطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	Free Hand Drawing (1)		Module Delivery		
Module Type	ً		☐Theory ☒ Lecture ☐ Lab ☐Tutorial ☒Practical ☐ Seminar		
Module Code	ARC 122				
ECTS Credits	٥				
SWL (hr/sem)	١٢٥				
Module Level	UGI	Semester of Delivery	2		
Administering Department	ARC	College	COE		
Module Leader	Ahmed Yaroub Ghanem Tohala	e-mail	ahmadtohala@uomosul.edu.iq		
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	PhD.		
Module Tutor		e-mail			
Peer Reviewer Name	Name	e-mail	E-mail		
Scientific Committee Approval Date		Version Number	1.0		
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None	Semester			
Co-requisites module	None	Semester			
Module Aims, Learning Outcomes and Indicative Contents					

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The free hand drawing curriculum for the architecture student aims at several important goals for the formation of the architect during his academic years, which go beyond learning the means and techniques of free hand drawing to develop visual perception and a mature architectural engineering vision of the world, which is very important for the architect, :including • The balance of vision and the development of artistic taste for objects and formations • Exercising the sense of sight on the vision and linking it to previous information about the theory of perspective to form thought, perception .and visualization of that form • Exercising the hand on expression by creating a harmonious relationship between the vision, the brain and the hand to express the .visual perception of the world • Learn the method of measurement of proportions and proportions using hand, pen and sight • Recognize the differences between the values of light, shade and .shadows in the theory of perspective and learn to express them • Learn the methods and techniques of drawing with different materials such as pencils and colors • Developing the ability to see the elements of artistic formation, such as .lines, shapes, sizes, textures and directions, and analyze them in the model • Developing self-reliance in the process of vision and expression through a series of drawing exercises that range in difficulty from simple shapes to .more complex ones • Obtaining a musical visual vision that will be important and useful for future architecture students
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• Aesthetic artistic taste through a musical vision of different shapes and configurations. • Learn the theory of perspective, which is the basis for visual perception of the world. • Create a harmonious relationship between vision, brain and hand for expression and the ability to express architectural ideas through free hand drawing. • Using the measurement method for proportions and proportions by hand, pen, and sight • Realizing the differences in light values in the theory of perspective and being able to express them. • Acquire the skills of using different drawing methods and techniques. • The artistic vision of the elements of the artistic composition, such as lines, shapes, sizes, textures, directions, and their analysis in the model.
Indicative Contents المحتويات الإرشادية	• Visual perception of different shapes from the perspective of the concept of perspective and its concepts. • Proportions in dimensions and shapes and measuring them by hand, pen, and vision. • Estimating light values, colors, tones, and the differences between them • Derivations of various shapes from the basic cube shape.

	• The relationship between vision, hand, visual perception, acquisition of vision skill and the ability to express. • Gaining the musical vision of an architecture student through practice and bringing concepts into practice.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	1 . Giving the student the basic concepts and previous information about the reality that he draws through a model, and then criticizing the drawing so that the student acquires the skill of correct vision and the ability to express. 2 . Diversifying the shapes and configurations of the model and the gradation in the degree of complexity from simple to complex

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	٦٣	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	4.2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	٦٢	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	٤,١٣
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	١٢٥		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	4, 13	LO #1, 2, and 3
	Assignments	1	30% 30)	6	LO #3
	Projects / Lab.	4 hr	30%(30)	12	LO #3 and 4
	Report				
Summative assessment	Midterm Exam	4 hr	15% (15)	15	LO #1-4
	Final Exam	3 hr	15%(15)	16	All

Total assessment	100% (100 Marks)		

Delivery Plan (Weekly Syllabus) **المنهاج الاسبوعي النظري**	
Week	Material Covered
Week 1	Introductory test for know the student aptitude
Week 2	Training for draw lines in different directions
Week 3	Simple model consist of cubes – stage 1
Week 4	Advance model consist of cubes – stage 1
Week 5	General discussion with the student about the drawing and paint
Week 6	Simple model consist of circle shapes & cylinders – Stage 1
Week 7	Simple model consist of circle shapes & cylinders – Stage 2
Week 8	Simple model consist of circle shapes & cylinders – Stage 3
Week 9	Simple model consist of oblique cubes – stage 1
Week 10	Simple model consist of oblique cubes – stage 2
Week 11	Simple models consist of potteries
Week 12	simple models consist of irregular forms1
Week 13	Advance model consist of irregular forms2
Week 14	General discussion with the student about the drawing and paint
Week 15	Final submission
Week 16	Final Exam

Learning and Teaching Resources **مصادر التعلم والتدريس**		
	Text	Available in the Library?
Required Texts	Drawing – a creative process, Francis d. k. Ching , john Wiley & sons , inc. , 1990 Drawing outdoor , henry c. pits , Watson-Guptill publications , 1965 , new York How to paint and draw , Bodo w. Jax Heimer , Thames and Hudson , 1962 , London Watercolor technique , rex Brandt , sixth edition , Reinhold publishing corporation , 1963	No

Recommended Texts		No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. This course aims at understanding building materials, properties, and uses; exterior and interior finishing materials, preparation of construction drawings, details. Identify the components of buildings and It's types by a clear structure, construction, and material.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	On successful completion of this course students will be able to: 1 Utilize basic principles of Building Construction. 2 Compose reports of properties of the building's materials and elements. 3. To Learn properties of the building's materials. 4. To Learn properties of the building's elements. 5. Understanding of process construction through materials and elements.
Indicative Contents المحتويات الإرشادية	Construction and Building Materials is a scientific course with theoretical, concerned with providing and analyzing information specialized in the field of Building Construction. The semester establishes for fundamental base for the building processes and provides the ability to use different techniques and tools for this purpose.

Module Information معلومات المادة الدراسية			
Module Title	ction and Building Materials	Module Delivery	
Module Type	Core	☒ Theory	
Module Code	ARC 123	☒ Lecture	
ECTS Credits	4	☐ Lab	
SWL (hr/sem)	100	☐ Tutorial	
		☐ Practical	
		☐ Seminar	

Module Level	UGV	Semester of Delivery	10
Administering Department	Architectural Engineering	College	College of Engineering
Module Leader	Adil Khalil Qasim	e-mail	adil.khalil@uomosul.edu.iq
Module Leader's Acad. Title	Assistant teacher	Module Leader's Qualification	MSc.
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	
Co-requisites module	Building Construction	Semester	Three

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Instructional strategies are hands-on learning, direct instruction, and document-based questions. Introduction to the principles of Building construction. Examples of building implementations.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	52	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.46
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation تقييم المادة الدراسية					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (10)	4,13	LO #1,2, and 3
	Assignments	1	15% (10)	6	LO #3
	Projects / Lab.				
	Report	1	10% (10)	5 and 15	
Summative assessment	Midterm Exam	2 hr	20% (20)	15	LO # 1-4
	Final Exam	3 hr	40% (40)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	Material Covered
Week 1	An Introduction about building materials The Stages of the construction of the building, and the components of the building (foundations- Walls- roofs- floors)
Week 2	Construction materials (Brick), building by Brick, constructional Symbols, (Homework)
Week 3	Stone, Types of stones, building by stone, Gypsum. (H.W.)
Week 4	Types of cement and Its properties. Concrete, Types of Concrete and Its Properties, Concrete Components. (Quiz1)
Week 5	A visit to laboratories and sites under construction, (Report)
Week 6	Light and hollow Concrete and Thurstone, industry, components, properties, uses. (H.W.)
Week 7	Steel, Aluminum, Plastic materials
Week 8	Term Exam 1st
Week 9	Foundations, and walls (H.W.)
Week 10	Roofs and Floors (H.W.)
Week 11	Vertical circulation elements (Stairs, Ramps, Escalators, Lifts) (H.W.)
Week 12	Vertical circulation elements (Stairs, Ramps, Escalators, Lifts) (H.W.)
Week 13	Openings (Doors and windows) (Quiz 2)
Week 14	Finishing and Insulation Materials
Week 15	A visit to sites under construction, (Report)
Week 16	Term Exam 2nd

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	• Building Constructions- By Zuhair M. Saco • Building Constructions, Walls and It's Details – By Anees Juaad • Civil Engineering for Architects (Poland)	Yes
Recommended Texts		
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**computer literacy**			Module Delivery	
Module Type	Support			☒ Theory ☐ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 124				
ECTS Credits	٣				
SWL (hr/sem)	٧٥				
Module Level	UGI	Semester of Delivery	2		
Administering Department	ARC	College	COE		
Module Leader	Ebtisam Al Sawaf	e-mail	ebtisamalsawaf@uomosul.edu.iq		
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	PhD		
Module Tutor		e-mail			
Peer Reviewer Name		e-mail			
Scientific Committee Approval Date		Version Number	1.0		
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	Mathematics (1).	Semester	1		
Co-requisites module	None	Semester			
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	The course aims to make students owing basic skills in IT (Word, Excel, Internet), Photoshop, AutoCAD				
Module Learning Outcomes	Introduction to Computer-Aided Drafting and Design which includes: 2D drawings, 3D modeling, rendering, and Image processing. Major CAD drafting, and presentation software tools will be used for the production, management, and presentation of project information. Introduction to				

مخرجات التعلم للمادة الدراسية	utilization of modeling and simulation software tools in Architectural Engineering.
Indicative Contents المحتويات الإرشادية	

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	٣٣	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	٢,٢
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	٤٢	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	٢,٨
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	٧٥		

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	30% (30)	5, 10	LO #1, 2 and 3
	Assignments	5	10% (10)	2, 12	LO # 1-6
	Projects / Lab.				
	Report				
Summative assessment	Midterm Exam	1 hr	10% (10)	8	LO # 1-3
	Final Exam	3hr	50% (50)	16	All

Total assessment	100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Introduction
Week 2	Introduction to Word
Week 3	Font, paragraph
Week 4	Word, Font , paragraph
Week 5	Insert table
Week 6	Insert picture
Week 7	Examination
Week 8	Introduction to Excel
Week 9	Math & trig functions
Week 10	Excel Math & trig functions
Week 11	Logical functions
Week 12	Logical functions
Week 13	Introduction to internet
Week 14	Internet, searching process
Week 15	Downloading & uploading
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Thomas' Calculus by Finney and Thomas.	NO
Recommended Texts	Calculus and Analytic Geometry 1 by Purcell,1972.	NO
Websites		

Grading Scheme

مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Mathematics (2)**			Module Delivery	
Module Type	Basic			☒ Theory ☐ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 125				
ECTS Credits	4.0				
SWL (hr/sem)	100				
Module Level	UGI	Semester of Delivery	2		
Administering Department	ARC	College	COE		
Module Leader	Tuqa Waleed Ahmed	e-mail	new.matrix242@uomosul.edu.iq		
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	M.Sc.		
Module Tutor	Mohammed Al Jawahery	e-mail	mohammed.aljawahery@uomosul.edu.iq		
Peer Reviewer Name		e-mail			
Scientific Committee Approval Date		Version Number	1.0		

Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**			
Prerequisite module	Mathematics (1).	Semester	1
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**	
Module Aims **أهداف المادة الدراسية**	• Provide the fundamental concepts of elementary mathematics for integration.

	• Use the mathematical integration to find the areas, volumes and the length of the curve
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	At the end of this course, students will have: • Understanding and applying the fundamental concepts of integration. • Finding the indefinite integral of a function using substitution techniques. • Being able to solve problems involving applications of integration, such as area between curves, volume of revolutions and length of curves. • Understanding the concept of inverse functions and how they relate to the original functions. • Recognizing the relationship between inverse trigonometric functions and their application in solving problems. • Applying the techniques of integration to solve integral problems.
Indicative Contents **المحتويات الإرشادية**	Indicative content includes the following. Integrating and finding the area with respect to x and y axes, definite integrals and indefinite integrals [10 hrs.]. Applications of definite integrals, areas between curves, volumes of solids of revolution, disks and washers, cylindrical shells, length of curves in the plane and areas of surfaces of revolution. [20 hrs.] The calculus of transcendental functions, inverse functions, $\ln x, e^x$ and logarithmic differentiation, general exponential and logarithmic function and the inverse of trigonometric functions. [20 hrs.] Techniques of integration, basic integration formulas, integration by parts, trigonometric integrals, trigonometric substitution, rational functions and partial fractions. [25 hrs.]
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.
Student Workload (SWL) **لحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	٧٨	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	5.2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	٢٢	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	١,٤٦
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	100		
Module Evaluation **تقييم المادة الدراسية**			

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	30% (30)	5, 10	LO #1, 2 and 3
	Assignments	5	10% (10)	2, 12	LO # 1-6
	Projects / Lab.				
	Report				
Summative assessment	Midterm Exam	1 hr	10% (10)	8	LO # 1-3
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Definite integrals and indefinite integrals.
Week 2	Integrating and finding the area with respect to x and y axes.
Week 3	Application of definite integrals and areas between curves.
Week 4	Volumes of solids of revolution: discs and washers' methods.
Week 5	Cylindrical shells method.
Week 6	Length of curves in the plane.
Week 7	Areas of surfaces of Revolution.
Week 8	The calculus of transcendental functions and inverse functions.
Week 9	and logarithmic differentiation.$\ln x, e^x$
Week 10	General exponential and logarithmic functions.
Week 11	The inverse trigonometric functions.
Week 12	Techniques of integration and basic integration formulas.
Week 13	Integration by parts.

Week 14	Trigonometric integrals and trigonometric substitution.
Week 15	Rational functions and partial fractions.
Week 16	Preparatory week before the final exam.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Thomas' Calculus by Finney and Thomas.	NO
Recommended Texts	Calculus and Analytic Geometry 1 by Purcell,1972.	NO
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**English language – Beginner**			Module Delivery	
Module Type				Theory ✓	
Module Code	ARC 126			Lecture ✓	
ECTS Credits	2			Lab	
SWL (hr/sem)	50			Tutorial Practical Seminar	
Module Level	UGI		Semester of Delivery	1	
Administering Department	Architectural Engineering		College	College of Engineering	
Module Leader	Rawya dabdob		e-mail		
Module Leader's Acad. Title	Assistant lecture		Module Leader's Qualification	MSc.	
Module Tutor			e-mail		
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules العلاقة مع المواد الدراسية الأخرى					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The main Learning Outcomes of English language Beginner module for the first stage is:

	1. Developing student´s skills in English language includes the four skills: - Listening objectives: Understand the main points of clear speech. - Reading Objectives: Understand basic language to read any topic on architecture. - Writing Objectives: write simply about familiar and architectural topics. - Speaking Objectives: extended communication skills in education contexts. Reflection on own learning and development and ability to work with and relate to others. 2. upgrading the quality of architectural educational aiming to obtain academic accreditation.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	The Module Learning Outcomes that serve the aim include: 1. learning English language may allow students to communicate easily with fellow global students and other counterparts. 2. learning English language may ease the access to different architectural information and resources in English. 3. learning English language may improve and widen employment opportunities and make them more confident. Those outcomes can be fulfilled through cognition domain from Blooms Taxonomy as following: 1. Remembering Vocabulary. • Recognizing words and their meanings • Describing things or situation 2. Understanding 'Everyday English' • Interpreting sentences • Explaining a word's meaning. 3. Applying 'Spoken grammar' • Comparing tools grammar • Applying tools and words meanings in forming sentences. • Carry out tools and grammars in writing.
Indicative Contents **المحتويات الإرشادية**	During the course, students will be able to speak interaction and production objectives, deal with most situations with basic English language. This course adopts Headway Student's Book, hence, is a communicative English language course designed by Oxford University. The course has been supplemented by a variety of communicative and business-related projects

	to ensure the outcomes of the program. The course aims to further develop students' language skills and strategies in reading, writing, listening, and speaking to a level where they can apply their language skills to longer, more complex material and tasks that help build confidence and prepare students to proceed to intermediate level. The course has seven units where each is carefully designed to develop students' four main skills. The course also pays good attention to grammar, vocabulary, and pronunciation.

Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	Learning and teaching strategies refer to instructors' methods and approaches to facilitate student learning and achievement of module learning outcomes. These strategies aim to engage students, promote understanding, and enhance their knowledge and skills in advanced English course. Here are the adopted learning and teaching strategies: 1. Lectures and presentations: the notes and the instructors are delivered through presentations introducing fundamental knowledge of English grammar and skills. 2. Interactive discussions: promotes active learning and thinking by engaging students in discussions. Instructors can facilitate class discussions on specific topics, encouraging students to share their insights, ask questions, and explore different perspectives. 3. Formative Assessments and Feedback: Regular formative assessments, such as quizzes and homework that help instructors gauge students' understanding and progress. Providing timely feedback allows students to identify areas for improvement and reinforces their learning.

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	٣٢	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	٢,١٣
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	١٨	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	١,٢
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	٥٠		

Module Evaluation **تقييم المادة الدراسية**

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	3,8	1,2
	Homework assignments	9	27% (27)	2,3,4,5,6,7,8,9, 11,12,13	1,2
	Discussions& Attendance	1	3% (3)	1,2,3,4,5,6,7,8, 9,11,12,13,14, 15	1,2
Summative assessment	Midterm Exam	1 hr	10% (10)	10	
	Final Exam	3 hr	50% (50)		
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Part of speech: Noun, pronoun, adjective, adverb
Week 2	Part of speech: verb tenses
Week 3	Unit 1: Hello , Am/is. My/your, this is. How are you?
Week 4	Unite 2: your world. He/she , His/her, Questions
Week 5	Unit 3: All about you\, Negatives-he/she is not. Questions and short answers, Negatives- I am/ they/ we are not
Week 6	Unit 4: Family and friends! Possessive adjectives, Possessive s, Common verbs,
Week 7	Unit 5: Things I like! Present simple positive, Present simple negative, Questions
Week 8	Reading and listening
Week 9	Reading and listening
Week 10	Midterm Exam
Week 11	Unit 6: Every day Present simple, Adverbs of frequency, Sometimes/never, Questions and negatives
Week 12	Unit 7: Favorite things Questions words, Pronouns, Possessive, This and that
Week 13	Writing report
Week 14	Writing report

Week 15	Writing report
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Liz & John Soars and Jo McCaul (2019) Headway-Beginner Student's Book Fifth Edition. OXFORD University Press. ISBN: 978-0-19-476966-2	No
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Architecture design 1**			Module Delivery	
Module Type	C			☐ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC 211				
ECTS Credits	١٢				
SWL (hr/sem)	٣٠٠				
Module Level		UGII	Semester of Delivery		3
Administering Department		ARC	College		COE
Module Leader	mozahim Mohammed Mustafa		e-mail		Mozahim.hadidi@uomosul.edu.iq
Module Leader's Acad. Title		LECTURER	Module Leader's Qualification		Ph.D.
Module Tutor	Name (if available)		e-mail		E-mail
Peer Reviewer Name		Name	e-mail		E-mail
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	Initiating the students into the basic principles of the design process (collecting information, analysis, synthesis), enabling them to start a design project, to resolve architectural functions and to manipulate architectural form and space within a given context using architectural vocabulary and respecting local architectural identity				

Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• At the end of the course, the student will be able to acquire the necessary knowledge to design buildings with limited spaces (Villa). • The student can make reports related to the analysis of similar examples, standards, and site analysis, in addition to other information about the project. • The ability to solve design problems and choose the best alternative in design
Indicative Contents **المحتويات الإرشادية**	Introduction, Primary Elements, Visual proportion of form, Primary shapes, Platonic solid, Regular and irregular forms, Transformation of form, Additive forms, Formal collisions of geometry, Articulation of form, Defining space with horizontal & vertical elements, Closure, Qualities of Architectural Space, Openings in space / Lighting, Spatial Relationships, Spatial Organizations, Circulation, Proportion and Scale, Practice/ Preliminary Presentation Ordering Principles, Practice/ Development.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	153	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	10
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	147	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	9.8
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	300		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Report	3	10% (10)	2,3,4	1,2,3,4,5,AND6
	Weekly assessment	13	10% (10)	1,13	

	Concept supmission	1	5%(5)	5	6,8,9,10,11,12,13,14
	Midterm supmission	1	10%(10)	7	
	Pre. Fınal Presentatıon	1	15% (15)	12	
	Fınal Presentatıon	1	20% (20)	16	
Summative assessment	Midterm Exam(Day Sketch 1)	3 hr	٥% ١ (15)	6,10	1,7
	Final Exam (Day Sketch2)	4	15% (15)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	General Introduction
Week 2	Definition and characteristics of the design process
Week 3	The design problematic and how to define it using architectural graphics and drawings
Week 4	Analysis as an interpreting tool clarifying the problem in relation to the composition
Week 5	Analysis using matrices
Week 6	architectural spaces adjacency criteria
Week 7	Day sketch
Week 8	Synthesis – representing matrices using geometrical shapes (the bubble diagram)
Week 9	Synthesis – representing matrices using geometrical shapes (the bubble diagram)
Week 10	Synthesis – Zoning
Week 11	Architectural form and its types
Week 12	Interlocking architectural forms
Week 13	Treatment of architectural form
Week 14	Solid and void

Week 15	Horizontal elements defining space
Week 16	Vertical elements defining spaces

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Architecture, form space & order by Francis D. K. Ching Methods of systematic analysis of design in architecture, By D. Mohamed A. Shihab	Yes
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**History of Ancient Architecture**			Module Delivery	
Module Type	C			☒ Theory ☒ Lecture ☐ Lab ☐Tutorial ☐ Practical ☒ Seminar	
Module Code	ARC 212				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level		UGII	Semester of Delivery		3
Administering Department		ARC	College	COE	
Module Leader	Ashraf Ibrahim Mahmood		e-mail	E- Ashraf.ibrahim@uomosul.edu.iq mail	
Module Leader's Acad. Title		Lecture	Module Leader's Qualification		M.Sc.
Module Tutor	Ashraf Ibrahim Mahmood		e-mail	E- Ashraf.ibrahim@uomosul.edu.iq mail	
Peer Reviewer Name		Anfal Hamodat	e-mail	Anfal.azzam@uomosul.edu.iq	
Scientific Committee Approval Date			Version Number	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	History of European Architecture, History of Islamic Architecture	Semester	2nd sem 2nd stage , 1st sem 3rd stage
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims	1. Students' ability to draw inspiration from the design characteristics of old buildings and employ them in their future designs.

أهداف المادة الدراسية	2. Increasing the visual knowledge store about the history of architecture, its stages of development, its characteristics and advantages 3. Preparing architectural graduates according to scientific rules that enable them to practice the profession of architecture in architectural and urban design, in city planning, internal and external spaces, and preservation of heritage and antiquities according to scientific rules and methods
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Gain knowledge about architectural history, including different styles and characteristics of buildings throughout history, through lectures, reading materials, and visual aids such as pictures and videos. 2. Understand and appreciate the importance of architectural style and its impact on society. 3. Apply knowledge and skills to real-world situations and problems in the fields of architecture, town planning, urban planning, interior and exterior spaces, and the preservation of cultural heritage and antiquities. 4. Practice the profession of architects according to scientific rules and methods. 5. Draw inspiration from design features of older buildings for future designs. 6. Use knowledge, skills, and creativity to develop new ideas, products or solutions by incorporating design features from old buildings into future designs.
Indicative Contents المحتويات الإرشادية	• Introduction of ancient Iraqi architecture 2hours, 1 week. • Sumerian architecture (introduction, temples and palaces architecture) 4hours, 2 weeks. • Babylonian Old Architecture (introduction, temples and palaces architecture) 2 hours, 1 week. • Assyrian architecture (introduction, the Assyrian capitals, the gates of cities, temples, and palaces). 6 hours, 3 weeks. • Babylonian modern architecture (planning the city of Babylon, the gates of the city, a street procession, temples and palaces Architecture) 2hours, 1 week. • Ancient Egyptian architecture - the general characteristics, the funereal Architecture, (pyramids, tombs carved in the mountains and temples). 6 hours, 3 weeks. • Greek Architecture – The general characteristics- orders- temples .6 hours, 3 weeks. • Students Reports Discussion. 2hours, 1 week.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The course includes lecture discussions and teaching and learning strategies for students to learn about ancient architecture. The course begins with an

	introduction to ancient Iraqi architecture followed by a detailed survey of Sumerian Babylonian Assyrian ancient Egyptian and Greek architecture. Topics are discussed weekly, and lessons are 2-6 hours per week. This lecture provides general characteristics of each architectural style and specific details of temple palace gates and other structures. In addition to lectures students are required to participate in discussions on topics covered in class. These discussions give students an opportunity to ask questions and share insights about the architecture being studied. Finally, students are expected to write a report on a specific topic related to ancient architecture. These reports allow students to delve deeper into specific aspects of a topic and demonstrate their understanding of the topic. In general, the teaching and learning strategies of this course are designed to provide students with a comprehensive understanding of ancient architecture through lectures. Discussion and independent study.

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	67	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	4.4
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	١٠٠		

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	% ٢٠(20)	4, 13	1,2,3,4,5,6
	Assignments	3	10% (10)	4, 13	1,2,3,4,5,6
	Projects / Lab.				
	Report	1	10% (10)	١٤	All

Summative assessment	Midterm Exam	2 hr	10% (10)	7	1,2,3,4,5,6
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Introduction of ancient Iraqi architecture
Week 2	Sumerian architecture
Week 3	Sumerian architecture
Week 4	Babylonian Old Architecture
Week 5	Assyrian architecture
Week 6	Assyrian architecture
Week 7	Assyrian architecture
Week 8	Babylonian modern architecture
Week 9	Ancient Egyptian architecture
Week 10	Ancient Egyptian architecture
Week 11	Ancient Egyptian architecture
Week 12	Greek Architecture
Week 13	Greek Architecture
Week 14	Greek Architecture
Week 15	Students Reports Discussion
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Living in ancient Mesopotamia**,** Bancroft-Hunt, Norman 2009	No

	Graphic History of Architecture: JOHN MANSBRIDGE , 1967 The art And Architecture of Ancient Egypt . Smith, William Stevenson,1981 Mesopotamia Ancient art and Architecture. Zainab Bahrani , 2017	
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Building Construction2**			Module Delivery	
Module Type	C			☒ Theory ☐Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC213				
ECTS Credits	٥				
SWL (hr/sem)	١٢٥				
Module Level	UGII		Semester of Delivery	3	
Administering Department	ARC		College	COE	
Module Leader	Raed salim ahmed		e-mail	Raeedalnumman@uomosul.edu.iq	
Module Leader's Acad. Title	Assistant Professor		Module Leader's Qualification	M.Sc.	
Module Tutor	Dr. sinan taleea		e-mail	Sinan@uomosul.edu.iq	
Peer Reviewer Name	Mohammed mahfood Adil khaleel		e-mail	Mohamed@uomosul.edu.iq adel@uomosul.edu.iq	
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	Building Construction1		Semester		
Co-requisites module	None		Semester		

Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**	
Module Aims **أهداف المادة الدراسية**	• Identify the relationship between the construction and architectural form. • identify the buildings that will be formatted by construction. • Developing the structural sense of students, in addition, to novating their ability to use different construction methods to create the built environment and different architectural shapes. Educating construction techniques, traditional (bearing wall), and modern (skeleton system) methods of construction. • Educate other related construction systems through theoretical and practical studying (lectures, exercises, and field visits), • So, students should be able to draw and read the working drawings. And its architectural details.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	On successful completion of this course students will be able to: • The students will be able to understand initially the basic principles of construction elements constituting architectural spaces and other associate systems common to construction. i , • The student should be able to apply, analyze and read the working and architectural drawings. ii, iv • The students will be able to create the technical details of their design. iii.
Indicative Contents **المحتويات الإرشادية**	1. Bearing Walls: a. Definition: Bearing walls are structural walls that support the weight of the building above them and transfer it to the foundation. b. Types: Load-bearing walls directly carry the building's load, while non-load-bearing walls are primarily used for dividing spaces. c. Materials: Common materials for bearing walls include concrete, brick, and stone. d. Construction: Bearing walls are typically constructed using masonry techniques or reinforced concrete. 2. Skeleton Systems: a. Definition: Skeleton systems, also known as frame structures, use a framework of beams, columns, and other structural elements to support the building. b. Types: Steel frame, reinforced concrete frame, and frame is popular types of skeleton systems. c. Materials: Skeleton systems use materials such as steel, concrete for their structural components.

	d. Construction: Skeleton systems involve the assembly of structural elements, such as steel beams or reinforced concrete columns, to create the building's framework. 3. Advantages: a. Bearing Walls: Provide excellent load-bearing capacity and structural stability. They are cost-effective and offer design flexibility for small to medium-sized buildings. b. Skeleton Systems: Allow for greater architectural freedom, open floor plans, and larger spans. They are suitable for high-rise buildings and structures with complex designs. 4. Considerations: a. Bearing Walls: Placement and spacing of bearing walls should be carefully considered to ensure structural integrity and proper load distribution. b. Skeleton Systems: Structural stability and load distribution are crucial factors in the design and construction of skeleton systems. Integration with other building components should also be taken into account.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	Present case studies of real buildings that utilize bearing wall and skeleton systems, discussing their design considerations, structural performance, and architectural aesthetics. Organize site visits to construction sites or existing buildings that employ bearing wall and skeleton systems, allowing students to observe the systems in action and interact with professionals involved in the construction process. Conduct guided tours or interviews with architects, engineers, or construction managers who can provide insights into the decision-making processes and challenges encountered during the construction of such buildings. These strategies aim to engage students actively in the learning process, promote understanding through visual and experiential means, and connect theoretical concepts to real-world examples. By employing a variety of teaching methods, students can develop a comprehensive understanding of bearing wall and skeleton systems in architectural building construction.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	٢,٢

Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	٩٢	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	٦,١٣
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	125		

Module Evaluation **تقييم المادة الدراسية**					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	4, 9,13	LO # 1, 2
	Assignments			2, 4	1,2
	Projects	1	15 %	Continuous	LO # 1, 2 and 3
	Report	6	15%	2,3	LO # 1, 2
Summative assessment	Midterm Exam	1	10% (10)		LO # 1, 2 and 3
	Final Exam		50%		
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) **المنهاج الاسبوعي النظري**	
Week	Material Covered
Week 1	General introduction of buildings construction, Arrangement of the built process
Week 2	Construction in Bearing wall sys. Advantage& disadvantage
Week 3	Sequences work construction in Bearing wall sys.
Week 4	Foundations ------- insulation horizontal layer instates
Week 5	Bearing wall built ---------- Parapet built
Week 6	Mid semester exam
Week 7	Opens building (Windows), (Doors)

Week 8	Insulation material roof finishes
Week 9	Skeleton build system advantage and disadvantage, Elements of skeleton building
Week 10	Kinds of columns /kinds of girder
Week 11	Foundations in skeleton building
Week 12	Roofs and Floors concrete slap
Week 13	Precast buildings system, introduction
Week 14	Precast buildings system, main elements, Precast roofs floors concrete
Week 15	Vertical communication elements (elevators, escalators)
Week 16	Theoretical test

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1. **(تركيب المباني نظام الجدران الحاملة وتفاصيلها المعمارية), انيس جواد, الجامعة التكنولوجية, ١٩٨** 2. Ching F." Building Construction" illustrated Wiley 2008 4th ed. 3. Building Construction, Barry vol. 3 1997 4. working drawing handbook 5. structure and fabric,1987 **٦. تركيب المباني (البناء الهيكلي وتفاصيله المعمارية, ١٩٨٧**	No
Recommended Texts	1. **رأفت, علي الأبداع الانشائي, مرآزابحاث انتركونسلت , الجيزة ١٩٩٨** 2. Building Construction vol. 5 1997 3. Foster Jack Stroud "Structure and Fabric" part 2 Bats ford academic, London 1985	No
Websites	http://www.greatbuildings.com/, https://www.vitruvio.ch/, https://www. bluffton.edu/~Sullivan/	

Grading Scheme

مخطط الدرجات

Group	Grade	**التقدير**	Marks (%)	Definition
Success Group	A – Excellent	**امتياز**	90 - 100	Outstanding Performance

(50 - 100)	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
(0 – 49)	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Computer Architectural Drawing 2D**			Module Delivery	
Module Type	C			☒ Theory ☒ Lecture ☒ Lab ☐Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC 215				
ECTS Credits	٥				
SWL (hr/sem)	١٢٥				
Module Level		UGII	Semester of Delivery		3
Administering Department		ARC	College		COE
Module Leader	Dr. Emad Hani Ismaeel		e-mail		emad.hani.ismaeel@uomosul.edu.iq
Module Leader's Acad. Title		Assistant Professor	Module Leader's Qualification		Ph.D.
Module Tutor			e-mail		
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					

Module Aims **أهداف المادة الدراسية**	To provide specialized information in the field of graphic computer software related to engineering and architectural drawings, especially the AutoCAD software. 2. enabling the user to use the commands gradually, according to the degree of importance of the order, its level of complexity, and the user's need for it according to the level of his capabilities and his ability of dealing with the details, orders, and elements of the software.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	On successful completion of this course students will be able to: 1. utilize basic principles of computer aided architectural drawing. 2. compose a well-designed digital drawing of buildings. 3. demonstrate familiarity with basic drawing terminology, tools, media and techniques of computer aided architectural drawing. 4. draw using a full range of values with the intended media. 5. select, frame, and compose from reality to the digital format. 6. use effective techniques to draw objects
Indicative Contents **المحتويات الإرشادية**	Computer Aided Drawing is a scientific course with theoretical and practical parts, concerned with providing specialized information in the field of graphic computer software related to engineering and architectural drawings, especially the AutoCAD software.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The approach of the course is based on explaining the details of the drawing process and the use of the program in sequential and interrelated stages, enabling the user to use the commands gradually, according to the degree of importance of the order, its level of complexity, and the user's need for it according to the level of his capabilities and his ability of dealing with the details, orders and elements of the software.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	٦٣	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	٤,٢
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	62	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	4.13
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	100		

Module Evaluation **تقييم المادة الدراسية**					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes				
	Assignments	5	30% (30)	4 - 13	LO #1,2,3, 4, and 5
	Projects / Lab.	١	10% (10)	١٣	
	Report				
Summative assessment	Midterm Exam	1 hr	10% (10)	7	LO # 1-5
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) **المنهاج الاسبوعي النظري**	
Week	Material Covered
Week 1	AutoCAD software - user interface and initial drawing settings, AutoCAD program interface elements, Coordinate systems in the program, Angle units in the program, Drafting Settings: Grid, Snap, Ortho, Set Drawing Limits, Working with graphic files: Create a new file, Open previous file, Save the new file, Save another copy of the file - Save As, Import an Import file, Export an Export file Drawing Utilities graphic file services, File Audit, File Recover, Remove unused items Purge, View the properties for the Drawing Properties graphic file, Exit the current file - Close, Exit the program
Week 2	Advanced drawing aids and selection methods, Object Snap, General commands for Editing items, Undo, Redo, Cut elements, Copy items, Copy objects with Base Point, Paste items, Paste the elements according to their original coordinate, Clear objects, Find Text Objects - Find, Visual handling of graphic elements and handling of multiple file windows, Scene Redraw, Scene Regeneration , Zoom in and out, Scene Offset - Pan, Expand the Clean Screen drawing field, Modify the contents of the Toolbars, Sort view of multiple files in Windows dropdown list, Cascade arrangement, Tile Horizontal, Tile Vertical
Week 3	Draw basic two-dimensional elements, Line, Ray, Construction Line, Polyline, Multiline Spline, Ellipse ,line , Polygon, Rectangle shape , Arc , Circle , Donut

Week 4	Modify tools -first group: Erase, Copy, Move, Mirror, Rotate, Scale, Offset, Rectangular and Polar Array
Week 5	Modify tools - second group: Properties, Match Properties, Stretch, Lengthen, Trim, Extend, Break, Join, Chamfer, Fillet, Explode, Align, Polyline Edit, Mline Edit
Week 6	Application
Week 7	1st term Exam
Week 8	2D Drawing Commands – second group: Point, Modify Point Style, Divide, Measure, Hatch, Gradient, Region, Boundary, Text, Mtext
Week 9	Create Block Drawings: Insert pre-made graphic blocks, Insert a graphic source DWG Reference, Insert bitmap image as an external Raster Image Reference, External resource management - External reference, Dealing with ready-made blocks in Tool Palettes
Week 10	Layers and drawing element settings: Color, Linetype, Line Weight, Text Style
Week 11	Dimensions and measurements: Quick dimensions, Linear dimensions, Aligned dimensions, Measure the arc length, Ordinate coordinates, Polar and angular, measurement group, Radius measurement, Jogged distant radius measurement, Diameter dimensions, Angular measure, Baseline dimensions, Continue dimensions, Multileader , Center mark, Jogged Linear , Oblique Measuring Lines, Align Text, Dimension Style
Week 12	Main tools: Workspaces, Palettes, Design Center, Spelling correction, Quick Select, Draw Order format, Inquiry, Block Editor, Save the drawing area as a digital image, General program options - Options, Program Assistant from the Help dropdown menu, System Variables
Week 13	Printing and output: Introduction to switching from the Model mode to the Layout mode, Print command from the File dropdown menu
Week 14	Application
Week 15	Application
Week 16	Final Exam
Delivery Plan (Weekly Lab. Syllabus) **المنهاج الاسبوعي للمختبر**	
Week	Material Covered
Week 1	Exercise 1

Week 2	Exercise 2
Week 3	Exercise 3
Week 4	Exercise 4
Week 5	Exercise 5
Week 6	Exercise 6
Week 7	None
Week 8	Exercise 7
Week 9	Exercise 8
Week 10	Exercise 9
Week 11	Exercise 10
Week 12	Exercise 11
Week 13	Exercise 12
Week 14	Exercise 13
Week 15	Exercise 14

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	• Al-Allaf, Emad Hani, Architectural and Computer Aided Engineering Drawing, 2D Drawing Principles in AutoCAD®, 2018.	Yes
Recommended Texts		

Websites	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**English language - Pre-Intermediate**			Module Delivery	
Module Type	E			Theory ✓ Lecture ✓ Lab Tutorial Practical Seminar	
Module Code	ARC216				
ECTS Credits	٢				
SWL (hr/sem)	٥٠				
Module Level			Semester of Delivery	1	
Administering Department		Architectural Engineering	College	College of Engineering	
Module Leader	Rawia Marwan Dabdoob		e-mail	rawia.dandoob@uomosul.edu.iq	
Module Leader's Acad. Title		Assist. Lecturer	Module Leader's Qualification		MSc.
Module Tutor	Maysaa Moffeq yones Alobaidi		e-mail	Maysaa.moffeq@uomosul.edu.iq	
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	English language - Beginner	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The main Learning Outcomes of English language Beginner module for the first stage is: Developing student´s skills in English language includes the four skills: - Listening objectives: Understand the main points of clear speech. - Reading Objectives: Understand basic language to read any topic on architecture. - Writing Objectives: write simply about familiar and architectural topics. - Speaking Objectives: extended communication skills in education contexts. Reflection on own learning and development and ability to work with and relate to others. upgrading the quality of architectural educational aiming to obtain academic accreditation.
Module Learning Outcomes	The Module Learning Outcomes that serve the aim include: learning English language may allow students to communicate easily with fellow global students and other counterparts.

مخرجات التعلم للمادة الدراسية	learning English language may ease the access to different architectural information and resources in English. learning English language may improve and widen employment opportunities and make them more confident. Those outcomes can be fulfilled through cognition domain from Blooms Taxonomy as following: Remembering Vocabulary. • Recognizing words and their meanings • Describing things or situation Understanding 'Everyday English' • Interpreting sentences • Explaining a word meaning. Applying 'Spoken grammar' • Comparing tools grammar • Applying tools and words meanings in forming sentences. • Carry out tools and grammars in writing.
Indicative Contents **المحتويات الإرشادية**	During the course, students will be able to speak interaction and production objectives, deal with most situations with basic English language. This course adopts Headway Student's Book, hence, is a communicative English language course designed by Oxford University. The course has been supplemented by a variety of communicative and business-related projects to ensure the outcomes of the program. The course aims to further develop students' language skills and strategies in reading, writing, listening, and speaking to a level where they can apply their language skills to longer, more complex material and tasks that help build confidence and prepare students to proceed to intermediate level. The course has twelve units where each is carefully designed to develop students' four main skills. The course also pays good attention to grammar, vocabulary, and pronunciation.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	Learning and teaching strategies refer to instructors' methods and approaches to facilitate student learning and achievement of module learning outcomes. These strategies aim to engage students, promote understanding, and enhance their knowledge and skills in advanced English course. Here are the adopted learning and teaching strategies: 4. Lectures and presentations: the notes and the instructors are delivered through presentations introducing fundamental knowledge of English grammar and skills. 5. Interactive discussions: promotes active learning and thinking by engaging students in discussions. Instructors can facilitate class discussions on specific topics, encouraging students to share their insights, ask questions, and explore different perspectives. 6. Formative Assessments and Feedback: Regular formative assessments, such as quizzes and homework that help instructors gauge students' understanding and progress. Providing timely feedback allows students to identify areas for improvement and reinforces their learning.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem)	33	Structured SWL (h/w)	2.2

الحمل الدراسي المنتظم للطالب خلال الفصل		**الحمل الدراسي المنتظم للطالب أسبوعيا**	
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	17	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	١,١٣
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	50		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	3,8	1,2
	Homework assignments	9	27% (27)	2,3,4,5,6,7,8,9,11,12,13	1,2
	Discussions& Attendance	1	3% (3)	1,2,3,4,5,6,7,8,9,11,12,13,14, 15	1,2
Summative assessment	Midterm Exam	1 hr	10% (10)	10	
	Final Exam	3 hr	50% (50)		
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Unit 1: Getting to know you Present, past, future tenses Right word, wrong word Social expression
Week 2	Unite 2: Whatever makes Present tenses Things I like doing Making conversation
Week 3	Unit 3: What´s in the news? Past tenses Regular and irregular verbs Saying when
Week 4	Unit 4: Eat, drink, and be merry!

	Quantity Food, Can you come for dinner?
Week 5	.Unit 5: Looking forward Verb patterns, Phrasal verbs, Expressing doubt and certainty
Week 6	Unit 6: The way I see it What …. Like?, Synonyms, What´s on?
Week 7	Unit 7: Living history Present perfect Word ending, Word stress, Agree with me
Week 8	Unit 8: Girls and boys have to – should – must Things to wear What things are made of At the doctor´s
Week 9	Unit 9: Time of a story Past perfect Narrative tenses Joining sentences- conjunctions Feelings Exclamations with so and such
Week 10	Midterm Exam
Week 11	Unit 10: Our interactive world Passives Words that go together On the phone
Week 12	Unit 11: Life´s what you make it! Present perfect continuous Birth, Marriage, Death Good news, bad news
Week 13	Unit 12: Just wondering. First conditional if + will, Might, Second conditional if + will Prepositions Thank you and goodbye!
Week 14	Reading and listening
Week 15	Writing report
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	John and Liz Soars (2016) New Headway Pre-Intermediate Student's Book Fourth Edition. OXFORD University Press. ISBN : 978-0-19-476966-2	No
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Architecture Design 2**			Module Delivery	
Module Type	C			☐ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC 221				
ECTS Credits	12				
SWL (hr/sem)	٣٠٠				
Module Level		UGII	Semester of Delivery		4
Administering Department		ARC	College	COE	
Module Leader	mozahim Mohammed Mustafa		e-mail	Mozahim.hadidi@uomosul.edu.iq	
Module Leader's Acad. Title		LECTURER	Module Leader's Qualification		Ph.D.
Module Tutor			e-mail		
Peer Reviewer Name		Name	e-mail		
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	Initiating the students into the basic principles of the design process (collecting information, analysis, synthesis), enabling them to start a design project, to resolve architectural functions and to manipulate architectural form and space				

	within a given context using architectural vocabulary and respecting local architectural identity
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	• At the end of the course, the student will be able to acquire the necessary knowledge to design 1buildings with limited spaces ((small project multi spaces)). • The student can make reports related to the analysis of similar examples, standards, and site analysis, in addition to other information about the project. • The ability to solve design problems and choose the best alternative in design
Indicative Contents **المحتويات الإرشادية**	Introduction, Primary Elements, Visual proportion of form, Primary shapes, Platonic solid, Regular and irregular forms, Transformation of form, Additive forms, Formal collisions of geometry, Articulation of form, Defining space with horizontal & vertical elements, Closure, Qualities of Architectural Space, Openings in space / Lighting, Spatial Relationships, Spatial Organizations, Circulation, Proportion and Scale, Practice/ Preliminary Presentation Ordering Principles, Practice/ Development.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	153	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	10
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	147	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	9.8
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	٣٠٠		

Module Evaluation **تقييم المادة الدراسية**				
	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome

As					
Formative assessment	Report	3	10% (10)	2,3,4	1,2,3,4,5,AND6
	Weekly assessment	13	10% (10)	1,13	
	Concept supmission	1	5%(5)	5	6,8,9,10,11,12,13,14
	Midterm supmission	1	10%(10)	7	
	Pre. Fınal Presentatıon	1	15% (15)	12	
	Fınal Presentatıon	1	20% (20)	16	
Summative assessment	Midterm Exam(Day Sketch 1)	3 hr	5% (15)١	6,10	1,7
	Final Exam (Day Sketch2)	4	15% (15)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Enclosure
Week 2	Day sketch
Week 3	Openings
Week 4	Spatial relationships
Week 5	Types of spatial organization
Week 6	Movement – accessibility
Week 7	Day sketch
Week 8	Movement patterns ,Entrances

Week 9	Scale
Week 10	Proportion
Week 11	Ordering principles/ Axes,
Week 12	Hierarchy, datum
Week 13	Symmetry and dominance
Week 14	Rhythm, repetition
Week 15	Rendering
Week 16	Final submission

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Architecture, form space & order by Francis D. K. Ching Methods of systematic analysis of design in architecture, By D. Mohamed A. Shihab	Yes
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	**التقدير**	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	**امتياز**	90 - 100	Outstanding Performance
	B - Very Good	**جيد جدا**	80 – 89	Above average with some errors

	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Free Hand Drawing (2)**			Module Delivery	
Module Type	S			☐Theory ☒ Lecture ☐ Lab ☐Tutorial ☒Practical ☐ Seminar	
Module Code	ARC 222				
ECTS Credits	٤				
SWL (hr/sem)	١٠٠				
Module Level		UGII	Semester of Delivery		4
Administering Department		ARC	College		COE
Module Leader	Ahmed Yaroub Ghanem Tohala		e-mail		ahmadtohala@uomosul.edu.iq
Module Leader's Acad. Title		Lecturer	Module Leader's Qualification		PhD.
Module Tutor			e-mail		
Peer Reviewer Name		Name	e-mail		E-mail
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					

Module Aims أهداف المادة الدراسية	The free hand drawing curriculum for the architecture student aims at several important goals for the formation of the architect during his academic years, which go beyond learning the means and techniques of free hand drawing to develop visual perception and a mature architectural engineering vision of the world, which is very important for the architect, including: • The balance of vision and the development of artistic taste for objects and formations • Exercising the sense of sight on the vision and linking it to previous information about the theory of perspective to form thought, perception and visualization of that form. • Exercising the hand on expression by creating a harmonious relationship between the vision, the brain and the hand to express the visual perception of the world. • Learn the method of measurement of proportions and proportions using hand, pen and sight • Recognize the differences between the values of light, shade and shadows in the theory of perspective and learn to express them. • Learn the methods and techniques of drawing with different materials such as pencils and colors • Developing the ability to see the elements of artistic formation, such as lines, shapes, sizes, textures and directions, and analyze them in the model. •Developing self-reliance in the process of vision and expression through a series of drawing exercises that range in difficulty from simple shapes to more complex ones. •Obtaining a musical visual vision that will be important and useful for future architecture students.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Aesthetic artistic taste through a musical vision of different shapes and configurations. 2. Learn the theory of perspective, which is the basis for visual perception of the world. 3. Create a harmonious relationship between vision, brain and hand for expression and the ability to express architectural ideas through free hand drawing. 4 .Using the measurement method for proportions and proportions by hand, pen and sight 5. Realizing the differences in light values in the theory of perspective and being able to express them. 6. Acquire the skills of using different drawing methods and techniques 7. The artistic vision of the elements of the artistic composition, such as lines, shapes, sizes, textures, directions, and their analysis in the model
Indicative Contents المحتويات الإرشادية	1. Visual perception of different shapes from the perspective of the concept of perspective and its concepts. 2. Proportions in dimensions and shapes and measuring them by hand, pen and vision. 3 . Estimating light values, colors, tones, and the differences between them 4 . Derivations of various shapes from the basic cube shape.

	5 . The relationship between vision, hand, visual perception, acquisition of vision skill and the ability to express. Gaining the musical vision of an architecture student through practice and bringing concepts into practice
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	1 . Giving the student the basic concepts and previous information about the reality that he draws through a model, and then criticizing the drawing so that the student acquires the skill of correct vision and the ability to express 2 . Diversifying the shapes and configurations of the model and the gradation in the degree of complexity from simple to complex
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	63	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	4.2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	37	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	2.46
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	100		

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	4, 13	LO #1, 2, and 3
	Assignments	1	10% (10)	6	LO #3
	Projects / Lab.	4 hr	20% (20)	12	LO #3 and 4
	Report				
Summative assessment	Midterm Exam	4 hr	30% (30)	15	LO #1-4

	Final Exam	3 hr	30% (30)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Introductory test for now the student aptitude
Week 2	Training for draw lines in different directions
Week 3	Simple models consist of cubes
Week 4	Advance models consist of cubes
Week 5	Simple models consist of circle shapes & cylinders
Week 6	Simple models consist of oblique cubes
Week 7	Simple model consist of glass bottles
Week 8	Simple model consist of potteries
Week 9	simple model consist of irregular forms
Week 10	Simple model consist of textile (clothes)
Week 11	Simple real building in outdoor
Week 12	more complex from the building in the past lecture1
Week 13	more complex from the building in the past lecture2
Week 14	General discussion with the student about the drawing and paint
Week 15	Final submission
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	drawing – a creative process , Francis d. k. ching , john Wiley & sons , inc.1990 drawing outdoor , Henry c. pitz , Watson- guptill publications , 1965 , new York how to paint and draw , bodo w. jaxtheimer , Thames and Hudson , 1962 , linden	No

	watercolor technique , rex Brandt , sixth edition , Reinhold publishing corporation , 1963.	
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**History of European Architecture**			Module Delivery	
Module Type	C			Theory ✓ Lecture ✓ Lab Tutorial ✓ Practical Seminar	
Module Code	ARC223				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level		UGII	Semester of Delivery		4
Administering Department		ARC	College		COE
Module Leader	Dr. Hassan Mahmood Kasim		e-mail		Hassan.kasim@uonosul.edu.iq
Module Leader's Acad. Title		Lecturer	Module Leader's Qualification		Ph.D.
Module Tutor			e-mail		
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					

Module Aims **أهداف المادة الدراسية**	- Inform students about the development of European Architecture from pre-Roman age until Renaissance and Baroque – 17th century. - Enhance the concept of architectural interactions between European civilizations and others, especially Arabic-Islamic civilization. - Analyzing historical examples of buildings according to architectural methodologies, to enhance students' understanding of architectural design. Free-hand sketch analysis of historical building to enhance students' skills of free-hand sketches of design concepts
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	- Knowledge and Understanding 1- Understanding the development of European architecture in terms of cultural interaction with other civilizations, especially Arab- Islamic Architecture. 2- Understanding the development of the history of architecture in terms of methods and techniques used in architectural design. B- Practical skills related to this academic program. 3- Ability to understand historical buildings through analyzing thinking. 4- Ability to use the conventions of architectural free-hand drawings to represent and analyze historical buildings. C- Thinking Skills 5- Ability to analyze historical buildings. 6- Architectural analysis by free-hand sketch according to architectural design methods.
Indicative Contents **المحتويات الإرشادية**	1. Historical, cultural and social influences on architecture 2. Natural and Environmental influences on architecture within every civilization 3. Integration of structural methods with architectural form 4. Architectural details and elements as identity of architectural styles 5. Comprehensive Architectural analysis of buildings 6. Manual drawings and diagrams as tools for architectural analysis

	7. Free hand drawings as tools for representations of architecture
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	1. Encouraging students' active participation through pre-lecture readings and class discussions. 2. Promoting an interactive learning environment by implementing reverse learning, where students explore and research important examples of architectural history. ● Lectures ● Asking questions and Discussions ● Drawing representation of historical buildings (Class work) ● Architectural analysis by free-hand sketch (Class work)

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	2.2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	42	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	٢,٨
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	75		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	5	15% (10)	3, 6, 9, 12,15	
	Class work	15	15%(15)	all	
	Report		10%(10)		
	Discussions& Analysis team's work				
Summative assessment	Midterm Exam	1.5 hr	10% (10)	8	
	Final Exam	3 hr	50% (50)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) **المنهاج الاسبوعي النظري**	
Week	Material Covered
Week 1	Introduction to the history of European Architecture
Week 2	Greek Architecture: Architectural characters & Orders
Week 3	Greek Architecture: Temples
Week 4	Roman Architecture: Architectural characters
Week 5	Roman Architecture: Temples & Pantheon
Week 6	Roman Architecture: Other Building types
Week 7	Interaction between Roman and Eastern Architecture
Week 8	Early Christian Architecture
Week 9	Byzantine Architecture
Week 10	Romanesque Architecture:
Week 11	Mid Term Exam
Week 12	Gothic Architecture:
Week 13	Early Renaissance Architecture
Week 14	High Renaissance Architecture
Week 15	Baroque Architecture
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources **مصادر التعلم والتدريس**		
	Text	Available in the Library?
Required Texts	-	No
Recommended Texts	Fletcher, Banister, *A History of Architecture on the Comparative Method*, R.I.B.A. London Mansbridge, John, *Graphic History of Architecture*, B.T. Bastsofrd Ltd., London, 1967.	Yes most of them
Websites		

Grading Scheme

مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	Physics			Module Delivery	
Module Type	S			☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☒ Seminar	
Module Code	ARC 224				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level		UGII	Semester of Delivery		4
Administering Department		ARC	College		COE
Module Leader	Bisam Ehessan ALHAFIZ		e-mail		Bisam.alhafiz@uomosul.edu.iq
Module Leader's Acad. Title		Lecturer	Module Leader's Qualification		Ph.D.
Module Tutor	Maysaa Moffeq yones Alobaidi		e-mail		Maysaa.moffeq@uomosul.edu.iq
Peer Reviewer Name		Name	e-mail		E-mail
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims	The module aims for the curriculum on Architectural Physics (1) are as follows:				

أهداف المادة الدراسية	To provide students with a comprehensive understanding of the relationship between architecture and climate. To introduce students to the principles and strategies of climate-responsive design in architecture. To explore the fundamental concepts of climate analysis and its influence on architectural design decisions. To develop students' knowledge and skills in utilizing passive design strategies for energy efficiency and thermal comfort. To familiarize students with sustainable technologies and practices related to renewable energy, water efficiency, and green infrastructure. To examine the impact of climate change on the built environment and equip students with resilient design strategies. To foster critical thinking and problem-solving abilities in addressing climate challenges through architectural design. To encourage students to analyze and evaluate case studies of climate-conscious architectural projects. To inspire students to explore future trends and innovations in sustainable architecture and climate-responsive design. To promote interdisciplinary collaboration and an understanding of the role of architecture in creating climate-friendly cities. These module aims aim to provide students with a strong foundation in the principles, techniques, and considerations related to architecture and climate, enabling them to design buildings that are responsive to their climatic conditions and contribute to environmental sustainability.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The module learning outcomes for the curriculum on Architectural Physics (1) are designed to provide students with a comprehensive understanding of the relationship between architecture and climate and equip them with the necessary knowledge and skills to design sustainable and climate-responsive buildings. The learning outcomes include: Understanding the fundamental relationship between architecture and climate and recognizing the significance of climate-responsive design in creating sustainable built environments. Analyzing and interpreting climate data to inform design decisions, including assessing different climate zones, understanding microclimates, and analyzing climate data for appropriate design responses. Applying passive design strategies to enhance energy efficiency and occupant comfort, such as considering orientation, solar access, shading techniques, and daylighting strategies in architectural design. Evaluating and selecting sustainable materials and technologies for building envelope design and insulation, including understanding the importance of a

	well-insulated building envelope and considering design considerations for minimizing heat transfer. Integrating renewable energy systems, such as solar panels and photovoltaics, into architectural designs and understanding the concept of net-zero energy buildings. Designing water-efficient systems and incorporating rainwater harvesting techniques, including understanding the importance of water efficiency in sustainable architecture and developing strategies for rainwater collection and reuse. Understanding the benefits and design considerations of green roofs, vertical gardens, and other green infrastructure elements, including their ecological and thermal advantages, and exploring design considerations and implementation techniques. Conducting life cycle assessments (LCAs) and applying cradle-to-cradle design principles, including evaluating sustainable materials, assessing life cycle assessments, and exploring the concept of cradle-to-cradle design. Developing resilient design strategies to address the impacts of climate change and extreme weather events, including understanding the challenges posed by climate change, exploring resilient design strategies, and considering adaptation and mitigation measures. Applying bioclimatic design principles inspired by vernacular and traditional architecture, including learning from lessons in traditional and vernacular architecture, exploring climate-responsive design in different regions and cultures, and incorporating passive cooling and heating techniques. Utilizing daylighting techniques and designing energy-efficient lighting systems, including understanding the importance of natural light, exploring techniques for optimizing daylight, and developing artificial lighting design strategies. Understanding the urban heat island effect and implementing mitigation strategies in urban design, including exploring sustainable urban planning principles and designing resilient and climate-friendly cities. Analyzing and evaluating case studies of exemplary climate-conscious architectural projects, including critically reflecting on design strategies and outcomes and drawing lessons for their own architectural practice. Identifying emerging trends, technologies, and innovations in sustainable architecture and climate-responsive design, including staying updated on advancements in the field, exploring emerging technologies, and identifying opportunities for further research. Demonstrating effective communication and teamwork skills through project presentations and discussions, including presenting design projects, engaging in discussions on architecture and climate-related topics, and collaborating with peers.

	These module learning outcomes provide a clear roadmap for students to acquire the necessary knowledge and skills in designing sustainable and climate-responsive buildings
Indicative Contents **المحتويات الإرشادية**	The curriculum on Architectural Physics covers a range of indicative contents to provide students with a comprehensive understanding of the subject. It begins with an introduction to the relationship between architecture and climate, emphasizing the importance of climate-responsive design and exploring key milestones in climate-conscious architecture. The fundamentals of climate are then explored, including different climate zones, climate data analysis, and the impact of microclimates on architectural design. Passive design strategies are introduced, focusing on principles for energy efficiency, orientation, solar access, shading, and daylighting techniques. Thermal comfort and building performance are addressed, covering human thermal comfort requirements, energy-efficient HVAC systems and controls, and building envelope design for thermal insulation. The curriculum also includes topics such as natural ventilation and cooling, building envelope and insulation, solar energy and photovoltaics, water efficiency and rainwater harvesting, and green roof and vertical gardens. These topics delve into the benefits and techniques of optimizing airflow, minimizing heat transfer, harnessing solar energy, and implementing sustainable water practices and green infrastructure. Sustainable materials and life cycle assessment are explored to familiarize students with the selection of eco-friendly materials and the evaluation of their environmental impact. Resilient design and climate change adaptation are discussed, focusing on strategies to address the impacts of climate change and promote resilience in architectural design. Additional topics include bioclimatic design and vernacular architecture, daylighting and lighting design, urban design and climate, and case studies showcasing exemplary climate-conscious architectural projects. The curriculum concludes with an exploration of future trends and opportunities for research and development in architecture and climate. Overall, these indicative contents provide a comprehensive framework for students to develop knowledge and skills in designing sustainable and climate-responsive buildings, considering various climate factors and incorporating innovative approaches to address the challenges of a changing climate.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The curriculum on Architectural Physics incorporates various learning and teaching strategies to enhance the students' understanding and engagement. These strategies include: Lectures: Traditional lectures are used to deliver foundational knowledge and theoretical concepts related to architecture and climate. Expert instructors provide in-depth explanations and present case studies to illustrate real-world examples.

	Interactive Discussions: Facilitated discussions encourage students to actively participate and share their thoughts, perspectives, and questions related to the topics being covered. This fosters critical thinking and deepens the understanding of the subject matter. Group Activities: Collaborative group activities promote teamwork and allow students to work together on projects, problem-solving tasks, and design exercises. This encourages peer learning and the exchange of ideas. Case Studies: In-depth analysis of case studies provides students with practical examples of climate-responsive architecture. They can study successful projects, evaluate design strategies, and understand the real-world challenges and solutions. Site Visits: Organizing site visits to sustainable buildings and architectural landmarks offers students the opportunity to experience climate-responsive design principles in practice. They can observe the integration of passive design strategies, renewable energy systems, and sustainable materials in actual buildings. Guest Lectures: Inviting guest speakers who are experts in the field of architecture and climate provides valuable insights and diverse perspectives. Guest lectures can offer practical experiences, industry trends, and emerging technologies, enriching the learning experience. Hands-on Workshops: Practical workshops allow students to apply theoretical knowledge to hands-on activities. They can engage in activities such as building energy modeling, daylighting simulations, and sustainable material experiments to enhance their understanding of key concepts. Research Projects: Assigning research projects to students enables them to delve deeper into specific topics of interest within architecture and climate. They can explore cutting-edge research, analyze data, and present their findings to the class. These strategies aim to create an interactive and immersive learning environment, fostering a deeper understanding of the relationship between architecture and climate and preparing students to design sustainable and climate-responsive buildings.

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	63	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	٤,٢
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	37	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	٢,٤٦
Total SWL (h/sem)	100		

الحمل الدراسي الكلي للطالب خلال الفصل	

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	3,10	1,2
	Homework/ classworks	2	10%(10)	3,5,7	6,8,9,10,11,12,13,14,15
	Report	1	10% (10)	2,10	5,7,8,9,10,11,12,13,14,15
	Discussions& Analysis team's work	1	5% (5)	14,15	8,9,10,11,14,15
Summative assessment	Midterm Exam	1 hr	١٠% (10)	8	1,2,3,4,6,14,15
	Final Exam	3 hr	50% (50)	16	1,2, 3, 4,6,14,15
Total assessment		100% (100 Marks)			

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Lecture 1: Introduction to Architecture and Climate • Overview of the relationship between architecture and climate • Importance of climate-responsive design • Historical context and key milestones in climate-conscious architecture
Week 2	Lecture 2: Climate Fundamentals • Understanding different climate zones and their characteristics • Climate data analysis and interpretation • Microclimates and their impact on architectural design
Week 3	Lecture 3: Passive Design Strategies • Principles of passive design for energy efficiency • Orientation and solar access • Shading and daylighting techniques

Week 4	Lecture 4: Thermal Comfort and Building Performance • Human thermal comfort requirements • Energy-efficient HVAC systems and controls • Building envelope design for thermal insulation
Week 5	Lecture 5: Natural Ventilation and Cooling • Benefits of natural ventilation in buildings • Strategies for optimizing airflow and cross-ventilation • Passive cooling techniques, such as stack effect and evaporative cooling
Week 6	Lecture 6: Building Envelope and Insulation • Importance of a well-insulated building envelope • Insulation materials and their properties • Design considerations for minimizing heat transfer
Week 7	Lecture 7: Solar Energy and Photovoltaics • Harnessing solar energy in architectural design • Integration of solar panels and photovoltaic systems • Net-zero energy buildings and energy-positive design
Week 8	Lecture 8: Water Efficiency and Rainwater Harvesting • Importance of water efficiency in sustainable architecture • Design strategies for rainwater collection and reuse • Water-saving fixtures and systems
Week 9	Lecture 9: Green Roof and Vertical Gardens • Benefits of green roofs and vertical gardens • Design considerations and implementation techniques • Ecological and thermal advantages of green infrastructure
Week 10	Lecture 10: Sustainable Materials and Life Cycle Assessment • Selection of sustainable materials and their properties • Life cycle assessment (LCA) and embodied energy • Cradle-to-cradle design principles
Week 11	Lecture 11: Resilient Design and Climate Change Adaptation

	• Understanding the impacts of climate change on the built environment • Resilient design strategies for extreme weather events • Adaptation and mitigation measures for future climate scenarios
Week 12	Lecture 12: Bioclimatic Design and Vernacular Architecture • Lessons from traditional and vernacular architecture • Climate-responsive design in different regions and cultures • Passive cooling and heating techniques from around the world
Week 13	Lecture 13: Daylighting and Lighting Design • Importance of daylight in architectural spaces • Techniques for optimizing natural light and reducing energy consumption • Artificial lighting design for energy efficiency and visual comfort
Week 14	Lecture 14: Urban Design and Climate • Urban heat island effect and mitigation strategies • Sustainable urban planning principles • Designing resilient and climate-friendly cities
Week 15	Lecture 15: Case Studies and Future Trends • Case studies of exemplary climate-conscious architectural projects • Emerging technologies and innovations in sustainable architecture • Opportunities for further research and development in architecture and climate
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Textbooks and Reference Materials: -"Sustainable Architecture: Principles, Paradigms, and Case Studies" by Svetlana Shitova -"Climate-Responsive Design: A Study of Buildings in Moderate and Hot Humid Climates" by Richard Hyde	No

	"Passive Solar Architecture: Heating, Cooling, Ventilation, Daylighting, and More Using Natural Flows" by David Bainbridge	
Recommended Texts	-"Climate-Responsive Design: A Study of Buildings in Moderate and Hot Humid Climates" by Richard Hyde "Passive Solar Architecture: Heating, Cooling, Ventilation, Daylighting, and More Using Natural Flows" by David Bainbridge	No
Websites	Websites dedicated to sustainable architecture and climate-responsive design, such as the U.S. Green Building Council (USGBC) and the World Green Building Council (WGBC) Online platforms offering educational content on architecture and climate, such as Coursera, edX, and MIT OpenCourseWare	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Computer Architectural Drawing 3D**			Module Delivery	
Module Type	C			☒ Theory ☒ Lecture ☒ Lab ☐Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC 225				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level		UGII	Semester of Delivery		4
Administering Department		ARC	College	COE	
Module Leader	Dr. Emad Hani Ismaeel		e-mail	emad.hani.ismaeel@uomosul.edu.iq	
Module Leader's Acad. Title		Assistant Professor	Module Leader's Qualification		Ph.D.
Module Tutor			e-mail		
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	Computer Architectural Drawing 2D		Semester	3	
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					

Module Aims **أهداف المادة الدراسية**	1. To provide specialized information in the field of graphic computer software related to engineering and architectural drawings, especially the AutoCAD software. 2. enabling the user to use the commands gradually, according to the degree of importance of the order, its level of complexity, and the user's need for it according to the level of his capabilities and his ability of dealing with the details, orders and elements of the software.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	On successful completion of this course students will be able to: 1. utilize basic principles of 3D computer aided architectural drawing. 2. compose a well-designed 3D digital drawing of buildings. 3. demonstrate familiarity with basic 3D drawing terminology, tools, media and techniques of computer aided architectural drawing. 4. draw using a full range of values with the intended media. 5. select, frame, and compose from reality to the 3D digital format. 6. use effective techniques to draw 3D objects
Indicative Contents **المحتويات الإرشادية**	Introduction to Computer-Aided Drafting and Design which includes 3D modeling, rendering, and Image processing. Major CAD drafting, and presentation software tools will be used for the production, management, and presentation of project information. Introduction to utilization of modeling and simulation software tools in Architectural Engineering.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The approach of the course is based on explaining the details of the drawing process and the use of the program in sequential and interrelated stages, enabling the user to use the commands gradually, according to the degree of importance of the order, its level of complexity, and the user's need for it according to the level of his capabilities and his ability of dealing with the details, orders and elements of the software.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	48	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	3.2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	52	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	3.46

Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	100

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes				
	Assignments	5	30% (30)	4 - 12	LO #1,2,3, 4, and 5
	Projects / Lab.	1	10% (10)	13	
	Report				
Summative assessment	Midterm Exam	1 hr	10% (10)	7	LO # 1-5
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Thickness, Elevation, Orbit, 3D views, UCS
Week 2	Modeling 1 : Poly Solid, Trace, Box,Wedge,Cone,Sphere,Cylinder,Torus,Pyramid
Week 3	Modeling 2: Extrude,Press Pull,Revolve,Sweep,Loft,3D Polyline,Helix,Planer,Solid,٣D Face
Week 4	Modeling 3: Meshes, Revolved mesh, Tabulated mesh, Ruled mesh, Edge mesh, Network
Week 5	3D Operations: Gizmo,3D Move,3D Rotate,3D Scale,3D Align,3D Mirror,3D Array, Interfere, Slice,Thicken,Convert to Solid,Convert to Surface
Week 6	Solid Editing: Union, Subtract, Intersect, Solid Edit, Extrude Face, Move Face, Rotate Face, OffsetFace, TaperFace, DeleteFace, Copy Face, Color Face, Copy Edge, Color Edge, Chamfer Edge, Fillet Edge, Imprint Edges, Separate, Shell, Clean, Check

Week 7	Application
Week 8	1st term Exam
Week 9	Render : Render Settings rendering process, Rendering Procedure, The final destination for the scene processing process, Image saving settings - Output File Name, Image resolution settings and characteristics, Managing preset display process methods, Improve processing and visibility
Week 10	Render Material : Material Browser, Inclusion of cladding and finishing materials in the AutoCAD program, Library of materials for cladding and finishing, Texture Materials window, Designation and inclusion of cladding materials on the surfaces of the figures, Control libraries of cladding materials
Week 11	Modifying materials: Create the texture material, Characteristics of cladding materials, General characteristics, Glossiness level refinement, Highlights, Reflectivity, Transparency, Translucency, Refraction, Cutout, Self Illumination, Bump Map - The roughness of the material
Week 12	Lights : Point Light, Spot Light , Distant Light, Web Light, Natural Light, Render Environment, Sun & Sky, Sky Background, Sun Properties, Geographic Location
Week 13	Views and Interaction: Camera, Walk & Fly , Motion Path Animation, Background, Fog and Depth Cueing, Work Spaces, Palettes and 3D Blocks
Week 14	Application
Week 15	Application
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	• Al-Allaf, Emad Hani, Rendering in AutoCAD software, 2018. • Al-Allaf, Emad Hani, 3D models in computer aided drawing software-AutoCAD software, 2018.	Yes
Recommended Texts		
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	**التقدير**	Marks (%)	Definition

Success Group (50 - 100)	A – Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Science of Mechanics**			Module Delivery	
Module Type	S			☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 226				
ECTS Credits	3				
SWL (hr/sem)	٧٥				
Module Level		UGII	Semester of Delivery		4
Administering Department		ARC	College	COE	
Module Leader	Mohammed Shakib Mohammed		e-mail	Mohammed.aljawahery@uomosul.edu.iq	
Module Leader's Acad. Title		Lecturer	Module Leader's Qualification		Ph.D.
Module Tutor	Tuqa Waleed Ahmed		e-mail	new.matrix242@uomosul.edu.iq	
Peer Reviewer Name		Name	e-mail	E-mail	
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	1. During this course, students should develop the ability to:				

	2. Work comfortably with basic engineering mechanics concepts required for analyzing static structures 3. Identify an appropriate structural system to study a given problem and isolate it from its environment. 4. Model the problem using good free-body diagrams and accurate equilibrium equations 5. Identify and model various types of loading and support conditions that act on structural systems. 6. Apply relevant mathematical, physical and engineering mechanical principles to the system to solve and analyze the problem. 7. Understand the meaning of centers of gravity (mass)/centroids and moments of Inertia using integration methods. 8. Communicate the solution to all problems in an organized and coherent manner and elucidate the meaning of the solution in the context of the problem. 9. Stress and Strain: Mechanics of materials provides a deep understanding of stress and strain in materials. Stress refers to the internal force per unit area within a material, while strain measures the deformation or elongation of a material in response to stress. These concepts help engineers and researchers analyze and predict the structural response of materials under different loading conditions. 10. Material Properties: Mechanics of materials helps characterize and understand materials' mechanical properties. These properties include elasticity, plasticity, strength, stiffness, toughness, and fatigue resistance. Knowledge of these properties allows engineers to select appropriate materials for specific applications and design structures that can withstand anticipated loads. 11. Mechanics of materials plays a crucial role in the design, analysis, and understanding of the mechanical behavior of materials and structures. It enables engineers to make informed decisions to ensure various engineering applications' reliability, efficiency, and safety.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	Students who complete this unit will be able to: 4. Solving mechanic problems using principles of engineering 5. Discern and determine the magnitude of loads acting on simple structural members! 6. Analyse rigid body equilibrium 7. Construct free-body diagrams showing the function of simple structural elements. 8. Analyse the force(s) or moment(s) required to maintain a structure in equilibrium.

	9. Analyse external reactions on structural members under applied loading. 10. Knowledge of different types of applied loading on a given structure. 11. Understanding the distribution and the path of forces within a structure. 12. Find center of gravity for a given body. 13. Find center of moment of inertia for a given body. 14. Understanding Material Behavior: By studying materials' mechanics, one deeply understands how materials respond to external forces and loads. This knowledge allows engineers to predict and analyze the behavior of materials in different situations, helping them make informed decisions regarding material selection, design, and structural integrity. 15. The outcomes of studying mechanics of materials and engineering mechanics empower engineers and researchers with the knowledge and skills necessary to design, analyze, and optimize the performance of materials and structures in a wide range of engineering applications.
Indicative Contents **المحتويات الإرشادية**	1- Demonstrate competence in identifying, defining, and solving design problems. 2- Apply appropriate knowledge of techniques and codes of practice to design components and systems. 3- Display the skills necessary to define, conduct and report on a bridge design project. 4- communicate effectively using written, oral and graphical skills 5- use mathematical skills appropriate to an engineer 6- work independently and in a team environment 7- manage workloads and time effectively
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The primary strategy adopted in delivering this module is encouraging student participation in the exercises while refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering simple experiments involving enjoyable sampling activities for the students.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	2.2
Unstructured SWL (h/sem)	42	Unstructured SWL (h/w)	2.8

الحمل الدراسي غير المنتظم للطالب خلال الفصل		**الحمل الدراسي غير المنتظم للطالب أسبوعيا**	
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	**٧٥**		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	20% (20)	4, 13	LO # 3 – 10
	Assignments	3	20% (20)	4, 13	LO # 3 – 10
	Projects / Lab.				
	Report				
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Resultant of Force Systems.
Week 2	Resultant of Concurrent Force Systems.
Week 3	Moment of Force, Couple.
Week 4	Resultant of Non-Concurrent Force Systems.
Week 5	Equilibrium of Force Systems, Equilibrium equations
Week 6	Free Body Diagram, Types of Supports, Types of Loadings.
Week 7	Centroids and Centers of Areas.
Week 8	Centroids of Composite Figures.

Week 9	Moments of inertia.
Week 10	Moments of Inertia of Composite Figures.
Week 11	Simple Stresses, Axial Stress, Shearing Stress, Bearing Stress.
Week 12	Bearing Stress, Simple Strain, Stress-Strain Diagram, Hook‟s Law.
Week 13	Shear and Moment in Beam, Shear Force Diagram, Bending Moment Diagram.
Week 14	Stresses in Beams. Types of Stresses
Week 15	Deflection in Beams
Week 16	Final Exam

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1- Engineering Mechanics 14th by Hibbeler, 2016 2- Vector Mechanics For Engineers Statics and Dynamics(12th), 2019 3- Mechanics of Materials by Hibbleler	No
Recommended Texts	1- Engineering Mechanics and Mechanics of materials by Hibbeler	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings

	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Architectural design 3**			Module Delivery	
Module Type	C			☒ Theory ☐Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC 311				
ECTS Credits	١٢				
SWL (hr/sem)	٣٠٠				
Module Level		UGII	Semester of Delivery		3
Administering Department		ARC	College	COE	
Module Leader	Raed salim ahmed		e-mail	Raeedalnumman@uomosul.edu.iq	
Module Leader's Acad. Title		Assistant Professor	Module Leader's Qualification		Ms.c.
Module Tutor	Dr. hussen salman		e-mail	hussen@uomosul.edu.iq	
Peer Reviewer Name		Ashraf ibahim Talaat Ibrahim Mayssa mofeq Aseel Ibrahim Eman	e-mail	E-mail	
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					

Prerequisite module	Architectural design 2	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims **أهداف المادة الدراسية**	Objectives: 1. To make students of architecture familiar with principles and concepts of planning taking into consideration the importance of the planning process and the role of the architect within this process. Students should be able to deal with the urban planning process and its elements including street and parking design and master plans besides introducing many world-wide experiments within this subject. 2. Systematic introduction to issues related to the design of human habitat, its components, and space standards. The objective of the studio will be on understanding residential spaces in both urban and traditional contexts. 3. To train students for undertaking the design of multi-story buildings, frame structures, considering site planning, structures, services, etc. 4. Study architecture prevalent in Iraq (Mosul city) and its local character and characteristic elements of design. 5. Green: Demonstration of world-leading sustainability principles 6. Global: Understanding of and interpreting the past, present, and future of the city, iconic, defining the identity and character of different Neighborhoods in Mosul City, demonstration of excellence in all aspects of planning, design, contemporary, inspired, and inventive, and expressive of its time and place, poetic and thought-provoking. 7. Responsiveness: Welcoming, open and inclusive, integrated and harmonious, visually connected with, and open to, its immediate surroundings, responsive to the site, the wider context, and the social needs of the families and whole community.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	On successful completion of this course, students will be able to: 1 . Ability to gather, analyze, assess, record, apply, and comparatively evaluate relevant information within architectural design processes. ii 2 . Demonstrate an understanding of principles and practices and integrate and apply that knowledge within architectural design processes. iii 3. Ability to develop imaginative and creative thinking. Ii
Indicative Contents	1. Design Principles and Concepts:

المحتويات الإرشادية	a. Exploring design principles such as scale, proportion, rhythm, and balance b. Developing design concepts for the housing project c. Incorporating sustainable design strategies and principles d. Spatial Planning and Functional Requirements: e. Understanding the spatial organization and functional requirements of residential spaces 2. Designing efficient floor plans for various types of housing units 3. Considering circulation, privacy, and accessibility in the design 4. Building Systems and Construction Techniques: 5. Exploring different materials, finishes, and construction technologies suitable for housing design 6. Environmental Design and Sustainability: Incorporating sustainable design principles and strategies for energy efficiency
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The architectural design learning strategy focuses on empowering students to develop the skills and knowledge necessary for creative design in architectural projects. This strategy includes architectural dictionaries, case study analysis, interactive workshops, and hands-on training. Communication and collaboration among students are enhanced through design critique sessions and teamwork in group projects. This strategy provides students with opportunities to develop their technical, artistic, and critical thinking skills while achieving a balance between theory and practical application in the field of architectural design.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	154	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	10
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	146	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	9.7
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	٣٠٠		

Module Evaluation تقييم المادة الدراسية					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Report	2	10%	2, 3,	LO # 1, 2,3,4
	Weekly assessment	13	10%	1-14	
	Concept submission	1	5%	5	LO #1,2,3,4,5,6
	Mid-term submission	1	5%	8	
	Pre-final submission	1	15%	14	
	Final submission	1	25%	16	
Summative assessment	Midterm Exam (Day sketch 1)	3 hr.	10%		LO #1-9
	Final Exam (Day sketch 2)	4 hr.	20%		LO #1-9
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly design studio) المنهاج الاسبوعي لأستوديو التصميم	
Week	Material Covered
Week 1	Introduction to multifamily housing
Week 2	Analysis of similar examples
Week 3	Site analysis
Week 4	Design concept and primary idea formulation
Week 5	Discussion
Week 6	Discussion
Week 7	First submission
Week 8	Details of plans
Week 9	Elevations and visual aspect

Week 10	Details
Week 11	Pre- Final submission
Week 12	Discussion
Week 13	Discussion
Week14	Final presentation settings
Week 15	Final submission

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	١. Joseph De Chiara, Julius Panero, Time-Saver Standards for Housing and Residential Development ٢. URBAN-HOUSING-STANDARDS, Iraq (2010) ٣. 2. Polservice , 1982 Housing Technical Standards & Codes of Practice.	No
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C - Good	جيد	70 – 79	Sound work with notable errors

	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Working Drawings 1**			Module Delivery	
Module Type	Core			☐Theory ☒ Lecture ☐ Lab ☐Tutorial ☒Practical ☐ Seminar	
Module Code	ARC 312				
ECTS Credits	٥,٠٠				
SWL (hr/sem)	١٢٥				
Module Level	UGIII	Semester of Delivery	5		
Administering Department	ARC	College	COE		
Module Leader	Talaat I. Alaane	e-mail	Talaat.Alaane @uomosul.edu.iq		
Module Leader's Acad. Title	lecturer	Module Leader's Qualification	M.A		
Module Tutor	Maysaa Moffeq Alobaidi	e-mail	Maysaa.moffeq@uomosul.edu.iq		
Peer Reviewer Name	Name	e-mail	E-mail		
Scientific Committee Approval Date		Version Number	1.0		
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None	Semester			
Co-requisites module	None	Semester			
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	1. Educate the student how design the working drawing sheet , Educate other related construction systems by theoretical and practical studying				

	(exercises and field visits) , so the student should be able to work , read the working and architectural drawings and learn the technical details of their own. 2. Introducing concrete designs and how to deal with concrete sections of various kinds and shapes, in addition to teaching students how to form and shape concrete structures with relatively large areas and dealing with details related to concrete sections as well as profiling the various architectural spaces designed from concrete sections. 3. The topic of building construction deals with execute methods of building construction from architectural view modern methods in building construction new technology in building construction (concrete structure). new technology and mechanism uses in building construction .
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	On successful completion of this course students will be able to: 1. Teaching the student the principles of designing facilities with concrete structures, as well as identifying the types of concrete structures and how to deal with them as an essential part of the design of the architectural form . 2. Apply clear practical programs that pay attention to the details of technology for the use of concrete structures. Without ignoring the standards of architectural beauty and keeping pace with the development taking place in developed countries by providing an architectural educational program that establishes a base based on modern technologies related to modern developments in the engineering and technical fields, especially with regard to architectural construction and building installation. 3. Paying attention to the quality of the architectural educational process by selecting updated curricula and completing self-evaluation reports in order to obtain academic accreditation. 4. Interest in applied scientific research and the design of applied projects to build partnerships and relationships with distinguished institutions and universities, especially with regard to the subject of advanced structural and architectural construction, as well as the practical application of the subject of construction and contemporary design methods.
Indicative Contents **المحتويات الإرشادية**	Indicative content includes the following. • Definition of building construction material and the relationship between initial ideas and planned Executive and to all the terms of reference., and how to set up the chart of the Executive and the standards of the scheme, as well as special symbols chart Executive.(20 hrs) • A detailed explanation of the physical layout of the level of sections and plans and interfaces, as architectural details(30 hrs) • Detailed explanation of the method of construction-ready systems and various Construction. And Architectural details and construction of the building ready at the level of ceilings and walls, the work of the link between the prefabricated pieces (ready).(35 hrs)

Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	78	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	5
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	47	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	3.1
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	125		

Module Evaluation **تقييم المادة الدراسية**					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Report	2	10%	2, 3,	LO # 1, 2,3,4
	Weekly assessment	13	10%	1-14	
	Concept submission	1	5%	5	LO #1,2,3,4,5,6
	Mid-term submission	1	5%	8	
	Pre-final submission	1	15%	14	
	Final submission	1	25%	16	

Summative assessment	Midterm Exam (Day sketch 1)	3 hr.	10%		LO #1-9
	Final Exam (Day sketch 2)	4 hr.	20%		LO #1-9
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Definition of building construction material and the relationship between initial ideas and planned Executive and to all the terms of reference.
Week 2	How to set up the chart of the Executive and the standards of the scheme, as well as special symbols chart Executive.
Week 3	First submission: A detailed explanation of the physical layout of the level of sections and plans and interfaces, as architectural details.
Week 4	Detailed explanation of the planned construction and structural details.
Week 5	Discussion
Week 6	Discussion
Week 7	Detailed explanation of the plan and details.
Week 8	Day sketch
Week 9	Second submission: Detailed explanation of the method of construction-ready systems and various Construction.
Week 10	Architectural details and construction of the building ready at the level of ceilings and walls, the work of the link between the prefabricated pieces (ready).
Week 11	Discussion
Week 12	Discussion
Week 13	Discussion

Week 14	Discussion
Week 15	Final submission
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1- Working Drawings Handbook , Keith Styles , Kindle Edition , 2014 by Architectural Press , USA , 2014 . 2- Working Drawings Handbook , Keith Styles, Andrew Bichard , SBN 9780750663724 Published September 4, 2004 by Routledge , UK , 2004 . 3- Architectural Working Drawings, Fourth Edition, Ralph W. Liebing (Author) Ralph W. Liebing , Wiley , USA , 1999 . 4- Architectural Working Drawings: Residential and Commercial Buildings , William P. Spence , John Wiley & Sons , USA , 2000 .	No
Recommended Texts		No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors

	C - Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**Computer rendering techniques**			Module Delivery	
Module Type	C			☒ Theory ☒ Lecture ☒ Lab ☒ Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC313				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level	UGIV		Semester of Delivery	1	
Administering Department	Architectural Engineering		College	College of Engineering	
Module Leader	Reem Ali Talib Alothman		e-mail	reemalothman@uomosul.edu.iq	
Module Leader's Acad. Title	Teacher		Module Leader's Qualification	Ph.D.	
Module Tutor	Miqdam A. Al-Kurukchi		e-mail	miqdamameen@uomosul.edu.iq	
Peer Reviewer Name	Name		e-mail	E-mail	
Scientific Committee Approval Date			Version Number	1.0	
Relation with other Modules العلاقة مع المواد الدراسية الأخرى					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية					
Module Aims أهداف المادة الدراسية	The course is concerned with applying the latest techniques used in computer aided architectural presentation by learning about drawing and rendering techniques by using 3d Max and Corona render software and also Lumion software to reach a computer aided architectural presentation that is as close to realism as possible. In addition to getting acquainted with the most important techniques to assist in architectural presentation through the use of Adobe Photoshop software. The course develops students' design skills and creative thinking through design and formal alternatives that students learn about during work, as well as the architectural presentation of various projects and in various environmental conditions.				
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• Remember and understand the most commands used in 3ds Max, Corona render and Lumion program. • Comparing the different of using these programs. • Describe different ways that used for drawing the same object or model. • Naming and describing the different kinds for final render. • The ability to choose the appropriate mode for final render, and judge its suitability for the building, reaching realistic scene. • Carrying out the final renders of project by putting different effects to reach the most suitable scene and design for the project. • Create iconic design of any project in any location. • Integrating the design of any project with realism as possible.				

	• Analysis of many effects, and different environment, and identifying the most suitable environment used to achieve final project render. • Design a project, making an explanatory poster, using the most important programs for drawing, rendering and postproduction suitable to the location and function. • Expresses the aesthetic, architectural and engineering uses of 3d Max, Corona render, Lumion and Photoshope. • The use of architectural drawing and rendering programs to reach innovative engineering designs to reach a virtual reality using modern technologies in construction. • Benefit from these programs in engineering and architectural work after graduation.
Indicative Contents **المحتويات الإرشادية**	Indicative content includes the following. • Introducing the 3ds Max program, import AutoCAD 2D file, create advanced and 3D architectural models and readymade models [15 hrs]. • The modifiers list and the most important modifiers used. Presenting an exterior design project. [9 hrs]. • Corona render software, the types and forms of Corona light, Corona material. [12 hrs]. • Blocks in 3ds Max program. [3 hrs]. • Lumion program, modify the materials. elements, environment, landscape and weather elements. • The final render for architectural projects. [6 hrs]. • Adobe Photoshop software program and post production for an exterior and interior design project. [6 hrs].
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through training sessions by considering different projects.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	48	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	3
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	52	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	3.4
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	100		

Module Evaluation تقييم المادة الدراسية					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 11	
	Poster	1	15% (15)	15	
	Projects / Lab.	1	5% (5)	7	
	Report				
Summative assessment	Midterm Exam	2 hr	20% (20)	8	
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	Material Covered
Week 1	Introducing the 3ds Max program and the program's drawing board, adjusting the basic settings, in addition to getting to know the main menus in the program.
Week 2	Learn the basic commands and commands used in 3ds Max.
Week 3	Learn how to draw two dimensional geometric shapes and Edit spline applications. Import AutoCAD 2D file.
Week 4	Learn how to create advanced and 3D architectural models (Extended primitives) and readymade models used in architectural and construction works AEC Extended.
Week 5	Edit poly applications.
Week 6	Get to know the modifiers list and the most important modifiers used. Start to convert AutoCAD 2D file to 3D.
Week 7	using instructions, orders **)** Presenting an exterior design project (Villa exterior design and rates.
Week 8	Mid Term Exam
Week 9	Interior design of an architectural space using directives, orders and modifiers + practical semester exam
Week 10	Learn about Corona render software and how to install it in 3ds Max. Learn how to set Corona cameras and how to adjust its main settings, and how to choose the appropriate shot.
Week 11	Adjust Corona render settings. Recognize the types and forms of Corona light and how to choose, adjust and define the appropriate lighting to control it.
Week 12	Learn how to add Corona material and their types using the Material editor and how adjust them, in addition to getting to know the Corona material library, in addition to the method of manufacturing different materials.

Week 13	The way to insert the different blocks within the 3ds Max program and the way to insert identifying the most important sites from them with their own material, in addition to which the different blocks can be obtained.
Week 14	The final render and the most important render settings to reach a more realistic scene and prepare the horizontal and vertical projections.
Week 15	Post production using Adobe Photoshop software program and adding different backgrounds and environmental effects. Presenting a presentation for an exterior and interior design project.
Week 16	Final Exam
Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	Material Covered
Week 1	Use the 3ds Max program's drawing board, adjusting the basic settings, and the main menus in the program.
Week 2	Use basic commands and commands used in 3ds Max.
Week 3	Draw two dimensional geometric shapes and Edit spline applications. Import AutoCAD 2D file.
Week 4	Create advanced and 3D architectural models (Extended primitives) and readymade models used in architectural and construction works AEC Extended.
Week 5	Use Edit poly applications.
Week 6	Use the modifiers list and the most important modifiers used. Start to convert AutoCAD 2D file to 3D.
Week 7	using instructions, orders **)** Presenting an exterior design project (Villa exterior design and rates.
Week 8	Mid Term Exam
Week 9	Draw an Interior design of an architectural space.
Week 10	Install Corona render software in 3ds Max. Set Corona cameras and adjust its main settings, and choose the appropriate shot.
Week 11	Adjust Corona render settings, and Corona light, adjust and define the appropriate lighting to control it.
Week 12	Add Corona material and their types using the Material editor and adjust them, in addition to getting the Corona material library, and the method of manufacturing different materials.
Week 13	Insert the different blocks within the 3ds Max program and insert them with their own identifying the most important sites from which the different material, in addition to blocks can be obtained.
Week 14	Render more realistic scene and prepare the horizontal and vertical projections.
Week 15	Add different backgrounds and environmental effects by using Adobe Photoshop software program. Presenting a presentation for an exterior and interior design project.

Week 16	Final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	-	No
Recommended Texts	1- A Fascinating journey into the world of 3D Graphics with 3ds Max. By Iftikhar Abbasov 2- Autodesk 3D Max Design- The Designer's Handbook. By Marcello Femi, AIA 3- Corona Render 1.3. By Giao Trinh 4- Mastering Lumion 3D. By Ciro Cardoso	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Principles of Housing**			Module Delivery	
Module Type	C			☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 314				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level		UGIII	Semester of Delivery		5
Administering Department		ARC	College		COE
Module Leader	Hassan alsinjary		e-mail		hasan.sanjary@uomosul.edu.iq
Module Leader's Acad. Title		Assistant Professor	Module Leader's Qualification		Ph.D.
Module Tutor	Assis.prof. Mazin Jaber Omar ISRA malallah aziz		e-mail		mazinjaber@uomosul.edu.iq Esraa malallah@uomosul.edu.iq
Peer Reviewer Name		Name	e-mail		E-mail
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					

Module Aims أهداف المادة الدراسية	1. Introduce students to the fundamental Knowledge of science of Housing. 2. Introduce students to basics of science of Housing. 3. Making behavioral changes for students after they had understood Basics of Housing & main topics. 4. Enable students to look to Housing as an Economic sector, 5. Enable students to understand Planning Indicators : Housing Densities,(FAR) , (PC),(O.R.)in H. Planning . 6. Enable students to deal with Practical planning of Residential urban fabric.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Able to analyze and calculate the H. needs & H. demands & H. Shortage 2. Able to count & deal with all kinds of housing densities. 3. Able to understand and deal with housing Standards. 4. Able to deal with architectural design project for a multi-family and multi-story housing complex. 5. Able to to refining and expanding their designing skills in housing projects. 6. At the end of this course, students will have gained knowledge of the fundamental concepts behind the science of Housing .
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Introduction to basics of science of Housing, and looking to Housing as an Economic sector. Also Definitions & Discussion of Housing and human Needs, Housing Demand [5 hrs]. Definitions & Discussion of Housings Standards & types. Definitions & Discussion of Housing Strategies in Iraq. Housing Policies & Programs [10 hrs]. Façade of urban Housing patterns in Iraq.Discussion of The development of urban Housing patterns ;environmental view, resident psychological & social views [15 hrs]. Housing Standards - Definition & Discussion, Types of H. Standards, Norms of H. Standards in Iraq **&** other countries [15 hrs]. Housing Density – Definition, Types & Discussion, How to estimate net residential Density, How to estimate gross residential Density Planning Indicators :(FAR) , (PC),(O.R.),Housing Policies - Definition **&** Discussion, Housing Programs - Definition **&** Discussion [15 hrs].
Learning and Teaching Strategies	

استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted is to make behavioral changes for students after they had understood Basics of Housing & main topics, so that they can deal with any problems in housing field and h. sector in future. Furthermore they get good background so that they can deal with architectural design project for a multi-family and multi-story housing complex. Also can deal with any urban design project,

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	42	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.9
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	30% (30)	4, 13	LO #3, 4, 5, and 6
	Assignments	2	10% (10)	4, 13	LO #3, 4, 5, and 6
	Projects / Lab.				
	Report				
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-6
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) **المنهاج الاسبوعي النظري**	
Week	Material Covered
Week 1	Introduction to Science of Housing. Housing as an Economic sector
Week 2	Discussion. **&** Housing Strategies in Iraq. Housing Policies & Programs - Definition
Week 3	Urban Housing patterns in Iraq. Report discussion ; stage 1
Week 4	Façade of urban Housing patterns in Iraq.
Week 5	The development of urban Housing pattern ;environmental view.
Week 6	Report Discussion ; stage 2 + monthly exam
Week 7	The development of urban Housing pattern ;resident psychological & social views.
Week 8	Housing Need - Definition & Discussion, How to estimate housing need
Week 9	Housing demand - Definition & Discussion, How to estimate housing demand
Week 10	**&** Housing Shortage - Definition & Discussion, Housing Stock - Definition
Week 11	Midterm Exam
Week 12	Housing Standards - Definition & Discussion, Types of H. Standards, Norms of H. other countries **&** Iraq Standards in
Week 13	Housing Density – Definition, Types & Discussion, How to estimate net residential Density, How to estimate gross residential Density
Week 14	Control of Housing Densities
Week 15	Discussion, **&** Planning Indicators :(FAR) , (PC),(O.R.),Housing Policies - Definition Discussion **&** Housing Programs - Definition
Week 16	Final Exam
Learning and Teaching Resources	

مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	• "Housing in Iraq - Problems - Policies - Programs", 1958 - Doxiadis Associates - Consulting Engineers - Republic of Iraq.	Yes
Recommended Texts	**- صالح، د. الهذلول، ١٩٨٦، (نمو وتطور المحيط العمراني المعاصر في المملكة العربية السعودية) ، من بحوث المؤتمر الثامن للمدن العربية – الرياض.** **- "مدينة البكر الصناعية – في خور الزبير – التصميم الأساسي" – ١٩٧٥ – هيئة تخطيط المدينة الصناعية وزارة البلديات – مديرية التخطيط والهندسة العامة – بغداد.** **- حاتم، حازم الصوفي، ١٩٨٨، (مفهوم الفضاء الحضري في المدينة العربية)، رسالة ماجستير مقدمة الى كلية الهندسة، جامعة بغداد.** **- مدينة الثرثار الجديدة، ١٩٨٧، تقرير المخطط الأساس النهائي"، حزيران، مجموعة اتحاد دوكسيادس. الهيئة المركزية للمدن الجديدة – الجمهورية العراقية - النعمة، مازن جابر :" دراسة تخطيطية عمرانية لحي السكن العربي المعاصر مع مقترح تصميمي لمحلة سكنية نموذجية" رسالة مقدمة الى مركز التخطيط الحضري والاقليمي / جامعة بغداد لنيل درجة الماجستير سنة ١٩٩٠- بغداد**	Yes
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria

Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Reinforced Concrete Design**			Module Delivery	
Module Type	Support			☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	ARC 315				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level		UGIII	Semester of Delivery		5
Administering Department		ARC	College	COE	
Module Leader	Mohammed Shakib Mohammed		e-mail	Mohammed.aljawahery@uomosul.edu.iq	
Module Leader's Acad. Title		Lecturer	Module Leader's Qualification		Ph.D.
Module Tutor	Fahad Akram Saeed		e-mail	Fahad.akram@uomosul.edu.iq	
Peer Reviewer Name		Name	e-mail	E-mail	
Scientific Committee Approval Date			Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					
Prerequisite module	None		Semester		
Co-requisites module	None		Semester		
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**					
Module Aims **أهداف المادة الدراسية**	This course aims to study the mechanical properties and fundamentals of reinforced concrete according to the ACI code and provide the students with the skills and techniques to design the sections and reinforcement for the structural elements such as beams and slabs with details working drawings. The course				

	educates participants on the principles, design concepts, construction techniques, and safety considerations associated with reinforced concrete. Here are some key objectives of a reinforced concrete course: 1. Understanding material properties: Participants learn about the properties of concrete and steel, including their strengths, limitations, and behavior under different loading conditions. This knowledge helps in designing and analyzing reinforced concrete structures. 2. Design principles: The course covers the fundamental principles of reinforced concrete design, including load analysis, structural stability, durability, and serviceability requirements. Participants learn to apply design codes and standards to ensure safe and efficient structures. 3. Structural analysis and modeling: Participants gain knowledge of structural analysis techniques specific to reinforced concrete structures. They learn to calculate internal forces, design moments, and shear forces to ensure structural integrity and optimal design. 4. Construction techniques: The course covers various construction methods and practices related to reinforced concrete. Participants learn about formwork systems, reinforcement placement, concrete mixing, curing, and quality control measures. Practical aspects such as construction sequencing and safety considerations are also addressed. 5. Codes and regulations: Understanding building codes, regulations, and industry standards is crucial in designing and constructing reinforced concrete structures. The course familiarizes participants with relevant codes and guidelines, ensuring compliance and adherence to safety standards. 6. Problem-solving and troubleshooting: Participants develop problem-solving skills to address challenges encountered during the design and construction phases. They learn to identify potential issues, assess risks, and implement appropriate solutions for reinforced concrete structures. Overall, a reinforced concrete course provides individuals with a comprehensive understanding of the principles, design methods, and construction practices related to reinforced concrete structures. It equips participants with the necessary knowledge to effectively contribute to designing, constructing, and maintaining such structures in the construction industry.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	Module Learning Outcomes (MLOs) are specific statements describing the expected knowledge, skills, and competencies students should acquire by the end of a particular module or course. The MLOs guide the curriculum and assessment strategies, ensuring students achieve the desired learning outcomes. Here are some examples of Module Learning Outcomes for a reinforced concrete course: Understand the properties and behavior of reinforced concrete materials: • Describe the properties of concrete and steel and their role in reinforced concrete structures.

	• Explain the behavior of reinforced concrete under different loading conditions. • Analyze the interaction between concrete and steel reinforcement. Apply design principles and codes to reinforced concrete structures: • Apply design principles for reinforced concrete beams, columns, slabs, and foundations. • Interpret and utilize relevant design codes and standards in the design process. • Evaluate and select appropriate reinforcement detailing for structural elements. Analyze and design reinforced concrete structures: • Perform structural analysis and calculations for reinforced concrete members. • Determine internal forces, moments, and shear forces in reinforced concrete elements. • Design reinforced concrete elements considering load capacity, deflection, and stability requirements. Understand construction techniques and practices for reinforced concrete: • Explain the construction process for reinforced concrete structures. • Identify and select appropriate formwork systems for different structural elements. • Understand the procedures for placing reinforcement and pouring concrete. Demonstrate effective problem-solving and decision-making skills: • Identify and resolve design and construction issues related to reinforced concrete structures. • Evaluate alternative solutions and make informed decisions based on structural requirements. • Apply critical thinking and analysis to troubleshoot problems encountered in reinforced concrete projects. Apply safety considerations and quality control measures: • Identify potential safety hazards and implement appropriate safety measures. • Understand quality control procedures for concrete mixing, curing, and testing.

	• Ensure compliance with safety regulations and industry standards during construction. These are general examples, and the specific Module Learning Outcomes may vary depending on the institution, the level of the course, and the depth of knowledge and skills expected from the students
Indicative Contents **المحتويات الإرشادية**	Indicative contents provide an overview of the topics or subject areas typically covered within a module or course. These contents give students an idea of what they can expect to learn and study during the course. Here are some indicative contents for a reinforced concrete course: Introduction to Reinforced Concrete: • Definition and characteristics of reinforced concrete. • Advantages and limitations of reinforced concrete structures. • Historical development and applications of reinforced concrete. Properties of Concrete and Steel: • Properties and behavior of concrete materials. • Properties and behavior of steel reinforcement. • Compatibility between concrete and steel reinforcement. Design Principles and Codes: • Design philosophy and principles for reinforced concrete structures. • Load analysis and determination of design loads. • Introduction to relevant design codes and standards. Flexural Design of Reinforced Concrete Beams: • Introduction to flexural behavior and design of beams. • Calculation of design moments and reinforcement requirements. • Consideration of factors such as deflection and shear. Shear in Reinforced Concrete: • Shear behavior and design of reinforced concrete elements. • Calculation of shear forces and design of shear reinforcement. Compression and Tension Members: • Design of reinforced concrete columns and compression members. • Determination of axial loads and design considerations.

	• Tension members: design of reinforced concrete ties and stirrups. Reinforced Concrete Slabs: • Behavior and design principles for reinforced concrete slabs. • One-way and two-way slab design methods.. 8- Foundations: • Design principles for reinforced concrete footings and foundations. Construction Techniques for Reinforced Concrete: • Formwork systems for reinforced concrete structures. • Reinforcement placement and concrete pouring procedures. • Curing, quality control, and inspection of concrete structures. The actual contents may also be influenced by the duration of the course and the depth of knowledge and skills intended to be covered.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	• Learning and teaching strategies refer to instructors' methods and approaches to facilitate student learning and achievement of module learning outcomes. These strategies aim to engage students, promote understanding, and enhance their knowledge and skills in the context of a reinforced concrete course. Here are some common learning and teaching strategies that can be employed: • Lectures and Presentations: Instructors can deliver lectures and presentations introducing key concepts, theories, and principles related to reinforced concrete. These sessions can provide a foundational understanding of the subject matter and help students grasp fundamental knowledge. • Case Studies and Real-Life Examples: Incorporating case studies and real-life examples allows students to see the practical application of reinforced concrete principles. Analyzing and discussing real-world projects can deepen their understanding of design, construction, and problem-solving processes. • Interactive Discussions: Engaging students in discussions promotes active learning and critical thinking. Instructors can facilitate class discussions on specific topics, encouraging students to share their insights, ask questions, and explore different perspectives on reinforced concrete. • Group Activities and Projects: Collaborative group activities or projects enable students to work together to solve problems, design structures, or analyze case scenarios. This approach fosters teamwork, communication skills, and the application of learned concepts in a practical context. • Field Trips and Site Visits: Organizing field trips or site visits to construction sites, reinforced concrete structures, or material testing laboratories provides students with a practical understanding of

	construction practices, reinforcement detailing, and quality control procedures. • Problem-Based Learning: Presenting students with real-world problems related to reinforced concrete encourages them to apply their knowledge, think critically, and develop problem-solving skills. Instructors can guide students through problem-solving, encouraging them to analyze, evaluate options, and propose solutions. • Formative Assessments and Feedback: Regular formative assessments, such as quizzes, assignments, or in-class exercises, help instructors gauge students' understanding and progress. Providing timely feedback allows students to identify areas for improvement and reinforces their learning. • Independent Study and Research: Encouraging students to engage in independent study and research promotes self-directed learning. Assigning relevant readings, research projects, or literature reviews on specific topics in reinforced concrete enables students to deepen their knowledge and explore areas of interest.

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	2
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	67	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	4.4
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	100		

Module Evaluation

تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	20% (20)	4, 13	LO # 1 – 6
	Assignments	3	20% (20)	4, 13	LO # 1 – 6
	Projects / Lab.				
	Report				

Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-4
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Introduction to Reinforced Concrete, Properties of Reinforcing Concrete.
Week 2	Resultant of Concurrent Force Systems.
Week 3	Ultimate Strength Theory, Design of Beam in Maximum Condition.
Week 4	Design of Beam in Maximum Condition., Design of Shear Reinforcement, Minimum Shear Reinforcement.
Week 5	Design of Singly Reinforced Beam.
Week 6	Design of Slabs, Design of One Way Slab. Design of Continuous Beam and One Way Slab.
Week 7	Loading Patterens for Continuous Beam and One Way Slab, ACI-Coefficients for Moment and Shear.
Week 8	Design of Short, Tied Columns, Design of Axially Loaded Columns.
Week 9	Design of Longitudinal and Tied Reinforcement.
Week 10	Design of Eccentrically Loaded,Short Columns.
Week 11	Design of Footings.
Week 12	Design of Wall Footing.
Week 13	Design of Bending and Secondary Reinforcement.

Week 14	Design of Spread Footing.
Week 15	Equations and Metod of Design, Interaction Diagrams.
Week 16	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	4- Darwin, David, Charles William Dolan, and Arthur H. Nilson.Design of concrete structures. New York, NY, USA:: McGraw-Hill Education, 2020. 5- Hassoun, M. Nadim, and AkthemAl-Manaseer.Structural concrete: theory and design. John wiley& sons, 2020. 6- Aghayere, A. O. , Limbrunner, George F. (2014) "DESIGN OF REINFORCED CONCRETE"8th ed. Library of Congress, USA.	No
Recommended Texts	ACI-Standared 318-19	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 – 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings

	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information معلومات المادة الدراسية					
Module Title	**English language - Intermediate**			Module Delivery	
Module Type	E			✓ Theory ✓ Lecture Lab Tutorial Practical Seminar	
Module Code	ARC316				
ECTS Credits	2				
SWL (hr/sem)	٥٠				
Module Level			Semester of Delivery	3	
Administering Department	Architectural Engineering		College	College of Engineering	
Module Leader	Rawia Marwan Dabdoob		e-mail	rawia.dandoob@uomosul.edu.iq	
Module Leader's Acad. Title	Assist. Lecturer		Module Leader's Qualification	MSc.	
Module Tutor	Maysaa Moffeq yones Alobaidi		e-mail	Maysaa.moffeq@uomosul.edu.iq	
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date			Version Number	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	English language – Pre-Intermediate	Semester	1
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The main Learning Outcomes of English language Beginner module for the first stage is: 1. Developing student´s skills in English language includes the four skills: - Listening objectives: Understand the main points of clear speech. - Reading Objectives: Understand basic language to read any topic on architecture. - Writing Objectives: write simply about familiar and architectural topics. - Speaking Objectives: extended communication skills in education contexts. Reflection on own learning and development and ability to work with, and relate to others. 2. upgrading the quality of architectural educational aiming to obtain academic accreditation.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The Module Learning Outcomes that serve the aim include: 1. learning English language may allow students to communicate easily with fellow global students and other counterparts. 2. learning English language may ease the access to different architectural information and resources in English.

	3. learning English language may improve and widen employment opportunities and make them more confident. Those outcomes can be fulfilled through cognition domain from Blooms Taxonomy as following: 1. Remembering Vocabulary. • Recognizing words and their meanings • Describing things or situation 2. Understanding 'Everyday English' • Interpreting sentences • Explaining a word meaning. 3. Applying 'Spoken grammar' • Comparing tools grammar • Applying tools and words meanings in forming sentences. • Carry out tools and grammars in writing.
Indicative Contents **المحتويات الإرشادية**	During the course, students will be able to speak interaction and production objectives, deal with most situations with basic English language. This course adopts Headway Student's Book, hence, is a communicative English language course designed by Oxford University. The course has been supplemented by a variety of communicative and business-related projects to ensure the outcomes of the program. The course aims to further develop students' language skills and strategies in reading, writing, listening, and speaking to a level where they can apply their language skills to longer, more complex material and tasks that help build confidence and prepare students to proceed to intermediate level. The course has twelve units where each is carefully designed to develop students' four main skills. The course also pays good attention to grammar, vocabulary, and pronunciation.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	Learning and teaching strategies refer to instructors' methods and approaches to facilitate student learning and achievement of module learning outcomes. These strategies aim to engage students, promote understanding, and enhance their knowledge and skills in advanced English course. Here are the adopted learning and teaching strategies: 7. Lectures and presentations: the notes and the instructors are delivered through presentations introducing fundamental knowledge of English grammar and skills. 8. Interactive discussions: promotes active learning and thinking by engaging students in discussions. Instructors can facilitate class discussions on specific topics, encouraging students to share their insights, ask questions, and explore different perspectives. 9. Formative Assessments and Feedback: Regular formative assessments, such as quizzes and homework that help instructors gauge students' understanding and progress. Providing timely feedback allows students to identify areas for improvement and reinforces their learning.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	33	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	١,٢٤
Unstructured SWL (h/sem)	17	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	١,٧٦

الحمل الدراسي غير المنتظم للطالب خلال الفصل			
Total SWL (h/sem) **الحمل الدراسي الكلي للطالب خلال الفصل**	50		

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	3,8	1,2
	Homework assignments	9	27% (27)	2,3,4,5,6,7,8,9,11,12,13	1,2
	Discussions & Attendance	1	3% (3)	1,2,3,4,5,6,7,8,9,11,12,13,14,15	1,2
Summative assessment	Midterm Exam	1 hr	10% (10)	10	
	Final Exam	3 hr	50% (50)		
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Unit 1: A world of difference Present, past, present perfect tenses Auxiliary verbs Questions and negatives Short answers Sounding polite
Week 2	Unite 2: The working week Present and continuous tenses State verbs Passive How often
Week 3	Unit 3: Good time, bed Past tenses
Week 4	Unit 4: Getting it right Modal and related verbs
Week 5	.Unit 5: Our Changing world

	Future forms Future possibilities
Week 6	Unit 6: What matters to me Information questions
Week 7	Unit 7: Passions and fashions Present perfect Passive Adverbs Time expressions
Week 8	Unit 8: No fear Verb patterns The infinitive The reduced infinitive
Week 9	Unit 9: It depends how you look at it Conditionals Might have done/ could have done Should have done
Week 10	Midterm Exam
Week 11	Unit 10: All things high tech Noun phrases Possessives Reflexive pronouns and each other
Week 12	Unit 11: Seeing is believing Present and past Modals of probability Looks like / looks Expressing disbelief
Week 13	Unit 12: Telling it how it is Reported Speech Reported thoughts Reported questions
Week 14	Listening and Reading
Week 15	Listening and Reading
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Liz and John Soars (2012) New Headway Intermediate Student's Book Fourth Edition. OXFORD University Press. ISBN-13 : 978-0194770200	No
Recommended Texts		No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C – Good	جيد	70 - 79	Sound work with notable errors
	D – Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E – Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information **معلومات المادة الدراسية**					
Module Title	**Architectural design 4**			Module Delivery	
Module Type	Core			☒ Theory ☐Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	ARC321				
ECTS Credits	12				
SWL (hr/sem)	٣٠٠				
Module Level		UGII	Semester of Delivery		4
Administering Department		ARC	College	COE	
Module Leader	Raed salim ahmed		e-mail	Raeedalnumman@uomosul.edu.iq	
Module Leader's Acad. Title		Assistant Professor	Module Leader's Qualification		Ms.c.
Module Tutor	Dr. hussen salman		e-mail	hussen@uomosul.edu.iq	
Peer Reviewer Name		Ashraf ibahim Talaat Ibrahim Mayssa mofeq Aseel Ibrahim Eman	e-mail	E-mail	
Scientific Committee Approval Date		/06/2023	Version Number		1.0
Relation with other Modules **العلاقة مع المواد الدراسية الأخرى**					

Prerequisite module	Architectural design 3	Semester	
Co-requisites module	None	Semester	
Module Aims, Learning Outcomes and Indicative Contents **أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية**			
Module Aims **أهداف المادة الدراسية**	To introduce concepts of function, and structure in the design process through projects and to learn how to apply design methodology for complicated projects		
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	On successful completion of this course, students will be able to: 1. Ability to gather, analyze, assess, record, apply, and comparatively evaluate relevant information within architectural design processes. ii 2. Demonstrate an understanding of principles and practices and integrate and apply that knowledge within architectural design processes. iii 3. Ability to develop imaginative and creative thinking. ii 4. An understanding of professional, legal, and social issues and responsibilities. 5. An ability to analyze the local and global impact of architecture on individuals, the environment, and society. Ii		
Indicative Contents **المحتويات الإرشادية**	1. Introduction to the Project: 2. Overview of the project scope, objectives, and stakeholders involved 3. Understanding the importance of integrating educational, cultural, and commercial facilities in a mixed-use development 4. Site Analysis and Planning: 5. Conducting a site analysis considering location, accessibility, and surrounding context 6. Urban planning principles and site planning strategies for integrating the school, culture center, and shopping center 7. Functional Requirements and Space Planning: 8. Understanding the specific requirements of a school, such as classrooms, laboratories, administrative areas, and outdoor spaces 9. Designing functional spaces for the culture center, including exhibition areas, performance spaces, studios, and multipurpose rooms		

	10. Planning retail spaces, circulation areas, and amenities for the shopping center Architectural Design Principles: 11. Exploring design principles such as scale, proportion, rhythm, and harmony 12. Incorporating architectural features and elements that reflect the purpose and identity of each facility 13. Sustainable Design and Energy Efficiency: 14. Integrating sustainable design principles and strategies, such as passive design techniques, renewable energy sources, and efficient building systems These indicative contents provide a comprehensive overview of the topics that can be covered when designing a general project that includes a school, culture center, and shopping center. The specific contents may vary based on the project's requirements and the intended learning outcomes.
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	The architectural design learning strategy focuses on empowering students to develop the skills and knowledge necessary for creative design in architectural projects. This strategy includes architectural dictionaries, case study analysis, interactive workshops, and hands-on training. Students are guided to use digital design tools and architectural software to create three-dimensional models and visualize projects. Communication and collaboration among students are enhanced through design critique sessions and teamwork in group projects. This strategy provides students with opportunities to develop their technical, artistic, and critical thinking skills while achieving a balance between theory and practical application in the field of architectural design.
Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا**	

Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	154	Structured SWL (h/w) **الحمل الدراسي المنتظم للطالب أسبوعيا**	10
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	146	Unstructured SWL (h/w) **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	9.7
Total SWL (h/sem)	300		

الحمل الدراسي الكلي للطالب خلال الفصل	

Module Evaluation
تقييم المادة الدراسية

As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Report	2	10%	2, 3,	LO # 1, 2,3,4
	Weekly assessment	13	10%	1-14	
	Concept submission	1	5%	5	LO #3,4,5
	Mid-term submission	1	5%	8	
	Pre-final submission	1	15%	14	
	Final submission	1	25%	16	
Summative assessment	Midterm Exam (Day sketch 1)	3 hr.	10%		LO #1-5
	Final Exam (Day sketch 2)	4 hr.	20%		LO #1-5
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Introduction (project 1)
Week 2	Introduction (project 2)
Week 3	Introduction (project 3)
Week 4	Analysis of similar examples
Week 5	Analysis of similar examples
Week 6	Main components of project
Week 7	Main components of project
Week 8	Design concept and primary idea formulation

Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Delivery Plan (Weekly design studio)

المنهاج الاسبوعي لأستوديو التصميم

Week	Material Covered
Week 1	Site analysis
Week 2	Design concept and primary idea formulation
Week 3	Feedback
Week 4	Feedback
Week 5	First submission
Week 6	Details of plans
Week 7	Feedback
Week 8	Feedback
Week 9	Day sketch
Week 10	Elevations and visual aspect
Week 11	Feedback
Week 12	Feedback
Week 13	Pre- Final submission
Week14	Feedback
Week 15	Final submission

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?

Required Texts	٤. 1. Joseph De Chiara, Julius Panero, Time-Saver Standards for Housing and Residential Development	No
Recommended Texts	2. Polservice , 1982 Housing Technical Standards & Codes of Practice	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 – 89	Above average with some errors
	C – Good	جيد	70 – 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 – 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 – 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.