



THE AMERICAN
UNIVERSITY OF KURDISTAN

College of Arts and Science
Design Department

IND209 Technical CAD Drawing
C O U R S E S Y L L A B U S

Instructor: Kawar Salih

Spring 2022

IND209 Technical CAD Drawing

Spring 2022 / In Campus, Sunday & Tuesday /16:30-17:45 PM

Instructors Information

Instructors

Kawar Salih, MSc.

Email

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Office Location & Hours

AUK 2nd floor and online by appointment by email or

Note: This syllabus is subject to change at the discretion of the instructor.

Course Information

Description

Through a combination of lecture, hands-on exercises, and drawing problems, this course introduces the student to Commercial Architectural Drafting using AutoCAD. The Architectural Drafting AutoCAD topics covered in this Level I course include an introduction to AutoCAD features, starting and setting up drawings, point coordinate entry methods, creation of basic 2D drawing objects, layer management, line types and colors, selection sets, object snap modes, AutoSnap, polar tracking, object snap tracking, construction techniques, creating and managing text objects, editing geometry, display control, and drawing inquiry methods. Fundamentally, it has been designed to learn AutoCAD software parallel with the drawing techniques. Therefore, students through the course will explore standard techniques of converting the architectural shapes and form to Plan, Sections, and Elevations. Additionally, they will be able to get the required computer skills of drawing.

Objectives and Outcomes

Objectives

Objectives

The course objective is to improve drawing skills with students for drafting and drawing advanced architectural forms, plan, sections, and elevations. It also aims to improve the computer Aided Design (CAD) skills with student. The course attempts also to teach the international Blue printing techniques with students.

Course learning Outcome (CLO)

CLO Code	Learning Objective	Taxonomy
A	Understand advanced techniques of drawing in incremental steps that will allow students to draw advanced architectural Plans, Sections, or Side Views.	Comprehension
B	Students will learn and apply techniques of CAD for drawing advanced shapes and forms of design.	Application
C	Students will be able to read and analyze the blueprint drawings and their symbols (such as Section line, Axis lines, hidden line, Centre lines, Hatching, Dimensions lines, thick and thin lines)	Analyzing

D	Student will be able to analyse advanced design forms and convert them architectural drawing (plans, sections and elevations).	Synthesis
E	Students will have a greater ability to draw compositions that are more complex independently once they leave the class.	Synthesis
F	. Students will gain from their own evaluation and consistent life renderings, a better ability to map and execute whatever they desire	Evaluation

Prerequisites and Co-requisites

1. Please look at the program brochure to know about prerequisites of the course.

Teaching Method

The information below is provided as a guide to assist students in engaging appropriately with the course requirements.

This is a 3 unit course. Students in this course are expected to attend 3 hours of lecture/ tutorial/ workshop each week and allow for 9-10 hours of self-directed learning each week. That is a total of 13 hours a week for 8 weeks. The tutorials and other activities, including reviews of work in progress are an important component of learning in this course. The communication skills developed by regularly and actively participating in activities and discussions are considered extremely important by the School and are highly regarded by employers and professional bodies.

This course requires high participation for each class. The course will include verbal communication between the students and teachers as well as use of. There needs to be commitment from the students to do enough self-directed studies in order to participate in class.

- **Lectures:** Students are required to attend lectures as these will provide the initial basis for further discussion and critique toward development of assessable outputs. Lectures may not be recorded. PDFs of slides may be provided but these may not contain critical verbal explanations of visual material. A range of lectures will background the diverse range of understandings and practice of design thinking.
- **Tutorial:** time will be devoted to discussion of assessable assignment material and some exercises supporting delivery of the assignments. They are also the primary means to receive individual feedback via work-in-progress reviews. At this level of learning, peer review and commentary is encouraged as a valuable learning tool, both in offering comment on fellow-students' work and in receiving and responding to comment on your own work. It is considered desirable to change and evolve your position throughout the course. Tutorials involve discussion and revision of points of view.
- **Workshop:** It will be held in the class and time will be spent on developing the work on assignment material. They are also the primary means to receive individual feedback via work-in-progress reviews. At this level of learning, peer review and commentary is encouraged as a valuable learning tool, both in offering comment on fellow-students' work and in receiving and responding to comment on your own work.
- **Small Group Discovery:** There will be tasks undertaken as part of the 'small group discovery' mode of teaching & learning.

Requirements

In order to accomplish the learning outcomes of this course, the learner is required to

- Attend class lectures

- Participate in class activities
- Read and study assignments
- Solve assigned problem sets
- Complete test, quizzes, homework, etc.
- Complete a comprehensive final exam

If student do not take a final exam, you cannot pass the course.

Personal business, such as travel, employment, family obligations, illness, weddings, graduations, and attendance at public events, is not an official, documented University conflict. The dropped quiz scores are intended to provide you with some flexibility with respect to personal business. If you feel that there are extenuating circumstances that should qualify you for an exception

Course Materials

- Jefferis, A., & Madsen, D. A. (2011). *Architectural drafting and Design*. Delmar.
- Gindis, E., & Kaebisch, R. C. (2019). *Up and running with AutoCAD 2019: 2D drafting and Design*. Elsevier/Academic Press.

Supplementary Materials

To be sent to you on TEAM.

Assessment and Grading

Grading Procedure

The courses grade will be divided according to the following

No	Exam, daily evaluation and projects	Percentage %	CLO covered	PEO
1	Homework (NO: 10)	40%	A, B, C	2
2	Final Project	40%	D, E, F	3
3	Final Exam	20%	All CLOs	

Examinations: One examination will be given during the semester towards the end of the semester. The exam is a closed-book, closed-notes examination. The time for the exam is 120 minutes. The time of the examinations will be announced at least two weeks before the exams. This course has no midterm exams

Homework and Classwork: at the end of each lecture there will be small classwork and homework will be assigned to students to work at home. Classwork and Homework must be submitted on time.

Final Project: during the last weeks of the course, a large project will be assigned to students and they have to work intensively to be submitted on time. The project worth 200 points.

The final grade will be based on assigned exercises, class participation, mid-point review and Final critiques for all projects. Detailed project evaluation and comment sheets will be distributed for each project. The distribution of percent and corresponding grades is given below (plus and minus will be given).

Grade Description Points	Score	Quality Points
A	90 - 100	4
A-	87 - 89	3.67
B+	84 - 86	3.33
B	80 - 83	3
B-	77- 79	2.67
C+	74 - 76	2.33
C	70 - 73	2
C-	67 - 69	1.67
D+	64 - 66	1.33
D	60 - 63 (Minimum Passing Grade)	1
F	0-59	0

Students who have achieved a distinguished level of academic performance are honored each semester by being mentioned and entered into the Provost's List. Students are eligible to enter the Provost's List after the completion of 16 graded semester credits (at AUK); as long as the student has not received an "Incomplete" in a course or taken any courses on a "Credit/No Credit" basis; and earned a semester grade point average of 3.50 or above with no grade below "C+". Students taking a course with an obligatory "Credit/No Credit" grading policy are not

Excluded from Provost's List consideration. See Academic Honors at <https://auk.edu.krd/wp-content/uploads/2021/07/AS001-Conferring-of-Degrees-Policy.pdf>

Feedback

- Grades and assignment feedback will be provided after one to two weeks to the students,
- The grades will be sent through the MS TEAM.
- The assignments must be submitted to the Course MS team and will not be accepted via email.
- The Professor may ask for a hard copy for each assignment.

Assignment Deadlines.

Assignment Deadlines	Date	Exam, Daily Evaluation and Project
Homework 1	2/2/2022	
Homework 2	14/2/2022	
Homework 3	16/2/2022	
Homework 4	28/2/2022	
Homework 5	2/3/2022	

Homework 6	7/3/2022	
Homework 7	10/3/2022	
Homework 8	10/3/2022	
Homework 9	14/3/2022	
Homework 10	1/4/2022	
Project Submission	6/5/2022	

Testing Policies

- All assignments should be submitted on time, delayed assignment will be accepted only in the case of a medical or some other strict issues determined by ARD department.
- The Lecturer has the authority to cancel any assignment from the presumably recommended six if the total submission's grade falls below the anticipated level.

Academic Integrity/Misconduct

The core values of The American University of Kurdistan (AUK) are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community. Accordingly, academic misconduct includes, but is not limited to:

1. **Plagiarism:** The adoption or reproduction of ideas, words, statements, images, or works of another person as one's own without proper attribution. This includes self-plagiarism, which occurs when an author submits material or research from a previous academic exercise to satisfy the requirements of another exercise and uses it without proper citation of its reuse. The allowed plagiarism rate is 20 %. Please refer to the following link for section P of AUK's policy IV. Alphabetized List of Policies
<http://auk.edu.krd/wp-content/uploads/2020/06/AS003-Student-Code-of-Conduct-and-Grievance-Policy.pdf>
2. **Cheating:** Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. This includes unapproved collaboration, which occurs when a student works with others on an academic exercise without the express permission of the professor. It also includes purchasing assignments or paying another person to complete a course for you. Please refer to the following link for section C of AUK's policy IV. Alphabetized List of Policies.
<http://auk.edu.krd/wp-content/uploads/2020/06/AS003-Student-Code-of-Conduct-and-Grievance-Policy.pdf>
3. **Fabrication:** Unauthorized falsification or invention of any information or citation in an academic exercise. Section B Violations is included in the following link.
<http://auk.edu.krd/wp-content/uploads/2020/06/AS003-Student-Code-of-Conduct-and-Grievance-Policy.pdf>

Going online and using information without proper citation, copying parts of other students' work, creating information to establish credibility, or using someone else's thoughts or ideas without appropriate acknowledgment is academic misconduct. If you have a question about

an assignment, please ask me to clarify. All cases of academic misconduct will be reported to the Chair and may result in failure on the test/assignment or for the course.

Students guilty of academic misconduct are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions, which may be imposed through the regular institutional procedures as a result of academic misconduct, students accused of plagiarism will be immediately reported to the department's chair, refer to VI. DISCIPLINARY PROCEDURES in the following link for more information about the disciplinary policies.

<http://auk.edu.krd/wp-content/uploads/2020/06/AS003-Student-Code-of-Conduct-and-Grievance-Policy.pdf>

AUK COVID-19 Protocol (Fall 2021)

Timeline of Actions:

Per the Kurdistan Regional Government's COVID-19 Pandemic regulations, AUK implemented the below Regulations and initiatives to protect the community from the spread of the pandemic and guarantee a COVID-free campus for a safe return from online teaching.

Mask Protocol

In accordance with the Kurdistan Regional Government's COVID-19 Pandemic regulations, AUK will be enforcing the below policy to protect the AUK community from the spread of the pandemic:

1. All AUK faculty, staff, students, and visitors are required to wear a face mask at all times.
2. Face masks must be properly fitted to cover the nose and mouth and not have any gaps.
3. Both vaccinated and non-vaccinated faculty, staff, students, and visitors must abide by the mask policy at all times.
4. Exceptions for face mask removal:
 - When eating or drinking
 - When alone in an office, residence hall room, or other space
 - When alone in a car
 - When teaching or lecturing in a university course at a distance of at least 1.5 meters from another individual. In this circumstance, instructors may use a university-approved alternative (e.g., face shield) instead of a face mask, but only if a face mask would unduly hamper classroom instruction.
 - When asked to remove the face mask by a school or law enforcement official to verify identity

University faculty, staff, and students should carry two masks with them at all times to account for the possibility a mask might be lost or spoiled.

University faculty, staff, and students are required to familiarize themselves with this Mask Policy and follow it at all times. This policy and its directives shall remain in effect until further notice.

Social Distancing Protocol

Faculty, staff, students and visitors must abide by social distancing protocol as stated below:

In the classroom, cafeteria, social areas, library, and other social spaces, seats must be left empty between neighboring tables.

Faculty, staff, students and visitors must maintain a distance of 1.5 meters from other.

In elevators, no more than 4 people can be an elevator at a time. Social distancing must be maintained within the elevator.

Faculty, staff, students, and visitors are asked to refrain from handshakes and any other physical contact with others.

Precautions

AUK strongly recommends the following precautions to help minimize the transmission of COVID-19 in the community.

Consistent handwashing and/or hand sanitizing.

Practice proper mask-wearing procedure.

If any faculty, staff, student, or visitor is exhibiting COVID-19 symptoms, they are recommended to stay home.

Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze.

If you have come in close contact with a person who has confirmed positive for COVID-19, please get tested within 3-5 days of contact.

Compliance

The University expects all members of the University community to continue to do their part to protect the health and safety of others.

Any employee, student, or visitor who fails to abide by this directive may be asked or directed to leave the campus space. Faculty, staff, and students who are directed to leave a campus space for failure to comply with these guidelines may be taken off duty and/or subject to disciplinary action.

Resources

- [KRG COVID-19 Regulations](#)
- [World Health Organization Mask Safety Resources](#)
- [AUK Clinic](#)

IF YOU TEST POSITIVE

- If any **faculty or staff** tests positive for COVID-19, they must notify Human Resources as soon as possible.
- If **students** test positive for COVID-19, they must notify both their academic departments and the Office of Student Affairs as soon as possible.

For more information about AUK COVID Protocol, please visit <https://auk.edu.krd/covid-19-updates/>

MS Team: appropriate behavior is required both in person and online. Appropriate language and attire are required on Zoom, both in lecture and break-out rooms.

Assignments and Participation

Assignments and Projects is distributed according to the following table, as it clarified the weight of the assignment marks is getting higher with the advancement of the course.

Class Participation

State student participation policies for your class.

- participation is required;
- communication with other students in team projects is expected;
- communicating with the instructor is a best practice;
- checking the course bulletin board frequently for announcements is expected;
- active participation in threaded discussion events is required.

Attendance Reporting

According to AUK attendance policy Students are obligated to complete all assigned work and attend class regularly. They are also required to participate in whatever class discussion may occur. The maximum allowed absence from class is 10 percent of the scheduled class sessions. This maximum percentage of absence may increase to 15% in case of the presence of a legitimate excuse such as health issues or bereavement of a first degree relative only. Students who exceed the maximum allowed absence from class in a particular course will fail that course and will not be permitted to take the final examination. Students are expected to:

- Attend class with necessary equipment and work at each class period
- Complete daily assignments, work on projects outside of class time, and arrive at each class period prepared to participate in class activities
- Seek critiques from faculty and students on a consistent and regular schedule
- Work quietly and respect the privacy and property of fellow students at all times
- Keep work organized and documented
- Inform the instructors if they are going to miss a class for any reason. See <http://auk.edu.krd/wp-content/uploads/2020/06/AS002-Policy-for-Student-Attendance-and-Classroom-Behavior.pdf>

Communication Guidelines

Email

All course communication will be conducted using AUK email. Faculty will not respond to student emails via a non-institutional assigned email account, e.g., a gmail or yahoo account.

Student Feedback

Providing professional and respectful feedback on the quality of instruction in this course is mandatory for all students via online surveys provided by AUK administrative personals. Students will be notified via their AUK emails when the evaluation period opens, and can complete evaluations in-class in a time manner the instructor provides.

Discussion Groups

- Review the discussion threads thoroughly before entering the discussion. Be a lurker then a discussant.
- Try to maintain threads by using the "Reply" button rather starting a new topic.
- Do not make insulting or inflammatory statements to other members of the discussion group. Be respectful of others' ideas.
- Review the discussion threads thoroughly before entering the discussion.
- Be cooperative with group leaders in completing assigned tasks.
- Be positive and constructive in group discussions.
- Respond in a thoughtful and timely manner.

MS Team Chat

- Introduce yourself to the other learners in the chat session.
- Be polite. Choose your words carefully. Do not use derogatory statements.
- Be concise in responding to others in the chat session.
- Be prepared to open the chat session at the scheduled time.
- Be constructive in your comments and suggestions.

Student Resources

AUK Catalog: <https://auk.edu.krd/wp-content/uploads/2021/09/final-catalog.pdf>

AUK Colander: <https://auk.edu.krd/wp-content/uploads/2021/08/Academic-Calendar-2021-2022-1.pdf>

AUK Policies: <https://auk.edu.krd/about/policies-and-guidelines/>

Technical Support

Students who experience technical problems including, but not limited to, logging into their course, timing out of their course, using the course web site tools, should be encouraged to contact the AUK IT Department.

Scholarship Information

AUK is dedicated to cultivating the future leaders of communities. To ensure diversity amongst our students, AUK aims to recruit the most talented young people from all socio-economic, ethnic, and religious backgrounds through awarding scholarships. In addition, scholarships ensure that all qualified students have access to higher education. See <https://auk.edu.krd/wp-content/uploads/2021/07/Scholarship-Policy.pdf>

Grievance and Appeal Process Policy Statement

Student complaints may be classified as grievances and fall into four categories: Academic, Non-Academic, Discrimination, and Financial Aid/Scholarship Challenge. Academic Grievances involve grade disputes. The student must follow the Student Academic Grade Grievance Policy. This policy deals with Non-Academic, Discrimination, and Financial Aid Challenge grievances. See <http://auk.edu.krd/wp-content/uploads/2020/10/AS011-Grievance-and-Appeal-Process-Policy.pdf>

Rubric

The purpose of the rubric is to offer a more efficient, quick, reliable, and exact method for assessing students' design projects in the design studio, as opposed to grading on a generic overall assessment.

Accordingly, the rubric is distributed through Knowledge /Understanding, Analysis/ Thinking/ Inquiry, Communication, Use of visual aids, Presentation skills.

Note/ the instructor might modify the rubric sections and mark's percentage according to the assignment

	Excellent	Competent	Needs work
Knowledge/ Understanding	The research demonstrates a depth of historical understanding by using relevant and accurate detail Research is thorough and goes beyond what was presented in class or in the assigned texts.	The research uses knowledge which is generally accurate with minor inaccuracies, and which is generally relevant to the student's thesis. Research is adequate but does not go much beyond what was presented in class	The research uses little relevant or accurate information, not even that which was presented in class or in the assigned texts.
Analysis/ Thinking/ Inquiry	The research is centered on a thesis which shows a highly developed awareness of history or social issues and a high level of conceptual ability.	The research shows an analytical structure and a central thesis, but the analysis is not always fully developed and/or linked to the thesis.	The research shows no analytical structure and no central thesis.
Communication	The research is imaginative and effective in conveying ideas to the audience.	The research techniques used are effective in conveying main ideas, but a bit unimaginative.	The research fails to capture the interest of the audience and/or is confusing in what is to be communicated.

		Some questions from the audience remain unanswered.	
Use of visual aids	The research includes appropriate and easily understood visual aids which the presenter refers to and explains at appropriate moments in the presentation.	The research includes appropriate visual aids, but these are too few, in a format that makes them difficult to use or understand, and/or the presenter does not refer to or explain them in the presentation.	The research includes no visual aids or visual aids that are inappropriate, and/or too small or messy to be understood.
Presentation skills	The presenter speaks clearly and loudly enough to be heard, using eye contact, a lively tone, gestures, and body language to engage the audience.	The presenter speaks clearly and loudly enough to be heard, but tends to drone and/or fails to use eye contact, gestures, and body language consistently or effectively at times.	The presenter cannot be heard and/or speaks so unclearly that s/he cannot be understood. There is no attempt to engage the audience through eye contact, gestures, or body language.

Course Schedule with Pin Up Included

Week	Lecture	Date	Topic	Description	Objectives
1	1	17/1/2022	Discussion & Distribution of the coursebook		
	2	19/1/2022	Reading architectural drawings	Drawing Techniques (Lecture and Exercises)	A
2	3	24/1/2022	Exercise (Classwork + Homework)		A
	4	26/1/2022	Introduction to CAD software +Draw panel (Lines)	AutoCAD+ Drafting Techniques	A, B
3	5	31/1/2022	Draw panel (Arc, Circle)		A, B
	6	2/2/2022	Draw panel (Rectangle, Pentagon ...etc)		A, B
4	7	7/1/2022	Modify Panel (move, rotate, copy)		A, B
	8	9/2/2022	Modify Panel (offset, trim, extent, Scale)		A, B
5	9	14/2/2022	Modify Panel (Block making and distribution, Mirror, Array)		A, B
	10	16/2/2022	Modify Panel (Picture scaling, drawing above sketch)		A, B
6	11	21/2/2022	Line types and Weight		A, B
	12	23/2/2022	Hatching and colours + Dimension Lines		A, B
7	13	28/2/2022	Layers		A, B
	14	2/3/2022	Text making and finalizing sheets		A, B
8	15	7//2022	Plotting		A, B
	16	9/3/2022	Session I. Drawing a small project (Plans)		Session on drafting
9	17	14/3/2022	Session II. Drawing a small project (Sections)		
	18	16/3/2022	Session III. Section through Staircase		C, D, E
10	19	28/3/2022	Section through Staircase (Circular staircase)		C, D, E

	20	30/3/2022	Drawing a small project (Elevations)		C, D, E
11	21	4/4/2022	Final Project (Site Plan drawing)	Project drawing by students using AutoCAD	D, E, F
	22	6/4/2022	Final Project (plan drawing)		D, E, F
12	23	11/4/2022	Final Project (plan drawing)		D, E, F
	24	13/4/2022	Final Project (Section Drawing 1)		D, E, F
13	25	18/4/2022	Final Project (Section Drawing 2)		D, E, F
	26	20/4/2022	Final Project (Elevation Drawing)		D, E, F
14	27	25/4/2022	Revision / Assignments Submission	Course End	
	28	27/2022	Final Exam		

The instructors reserve the right to alter the sequence, scope, and content of the above course outline. Adjustments to the course outline will be made when necessary and according to the professional judgment of the instructor. A new course outline will be distributed when changes