



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

الكلية التقنية الهندسية

قسم هندسة تقنيات الامن السيبراني



Lecture: 3- Drawing Tool



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

## **THIS LACTURE INCLUDES :-**

- ✓ **Setup of the units**
- ✓ **Setup of the drawing grid**
- ✓ **Draw Line commands**
- ✓ **Draw Polyline commands**
- ✓ **Draw Circle commands**
- ✓ **Application of Line and Circle commands**



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

## Draw list

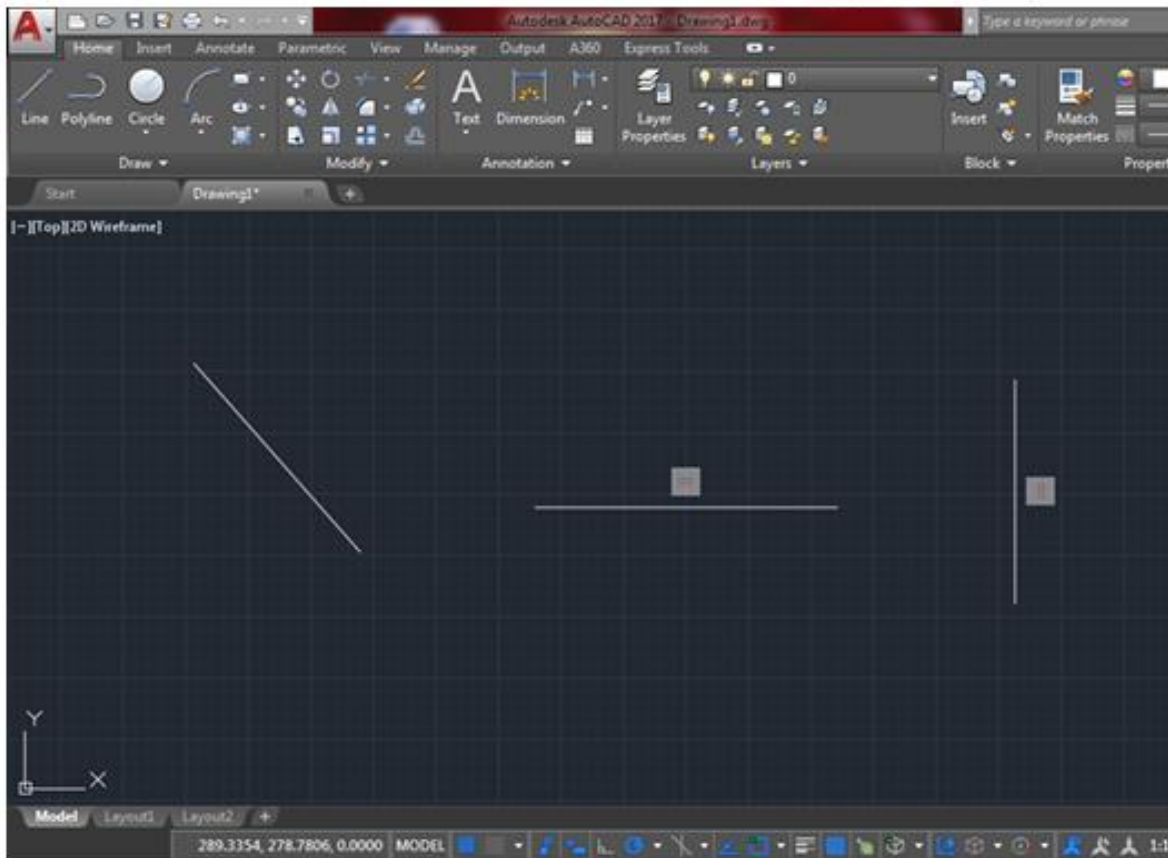
**This list contains a set of commands, each of which draws a specific shape according to the inputs, which could be the starting point, the center, and the radius up to the ending point.**

**There are basic commands that you rely on when drawing shapes, due to their clarity and ease of finding them in the list. The commands are:**



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool



## Line

**One of the most important commands that can be used to draw a line, whether it is diagonal, straight or vertical.**



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>  
Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

**To start the command Line:** لتفعيل امر رسم الخط

1. Select the command from the draw panel  
اختر الامر من لوحة الرسم كما موضح اليه في السهم
2. Type Line or L in the command bar then ENTER  
اكتب الكلمة او اول حرف ثم اضغط انتر (ادخال)

بعد تفعيل الامر يمكن رسم الخط بعدة طرق:

1. من خلال تحديد نقطتي البداية و النهاية باستخدام الفارة
2. من خلال تحديد احدائيات النقطتين باستخدام لوحة المفاتيح
3. من خلال تحديد النقطة الاولى و من ثم تحديد طول الخط و زاوية ميله

في كل الاحوال يجب الضغط على مفتاح انتر (ادخال) لتنفيذ الامر

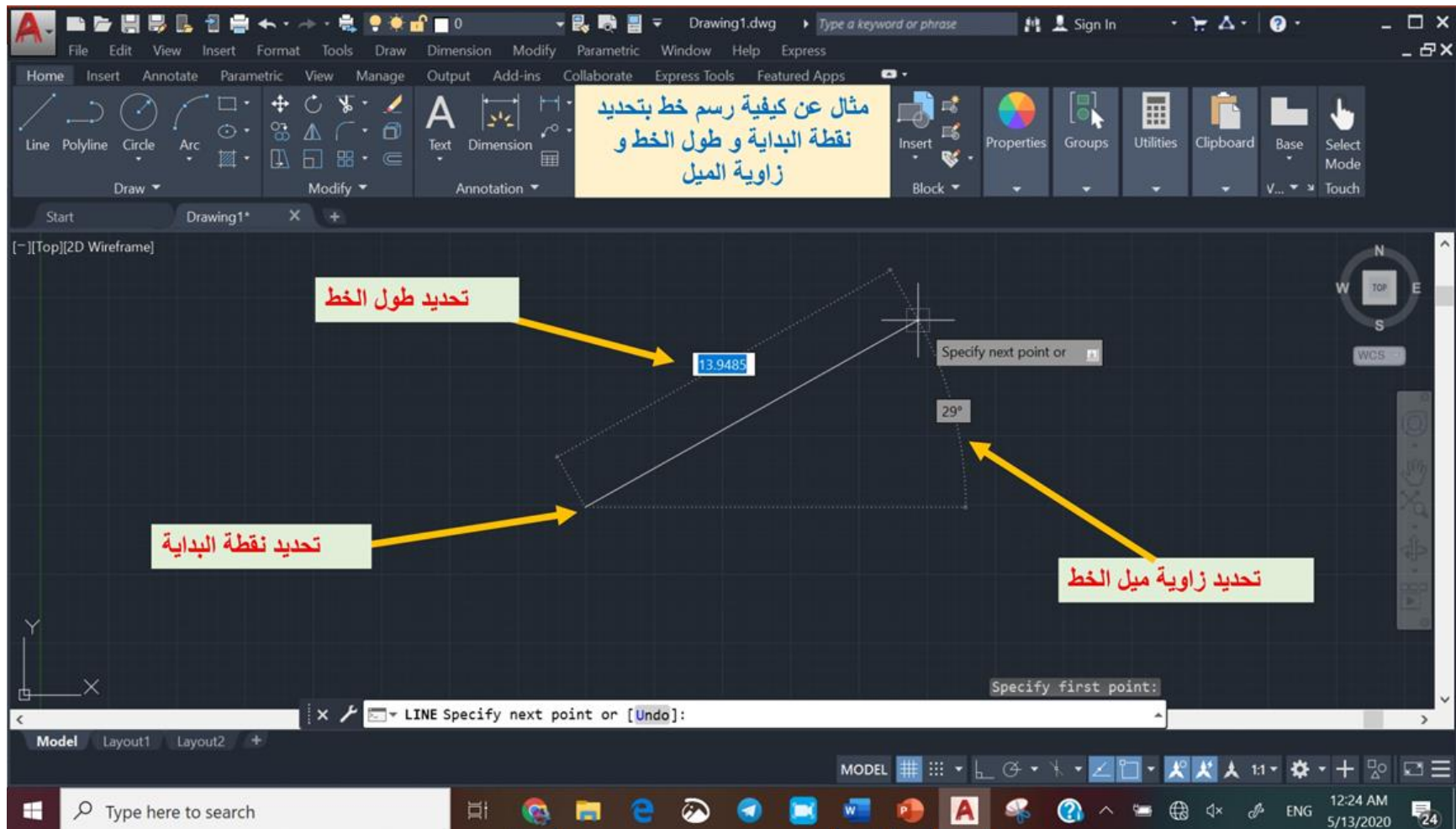
ملاحظة: يقوم اوتوكاد بفتح خط جديد حتى بعد رسم الخط الاول: فاذا اردت إيقاف الامر : اضغط

**Escape**



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

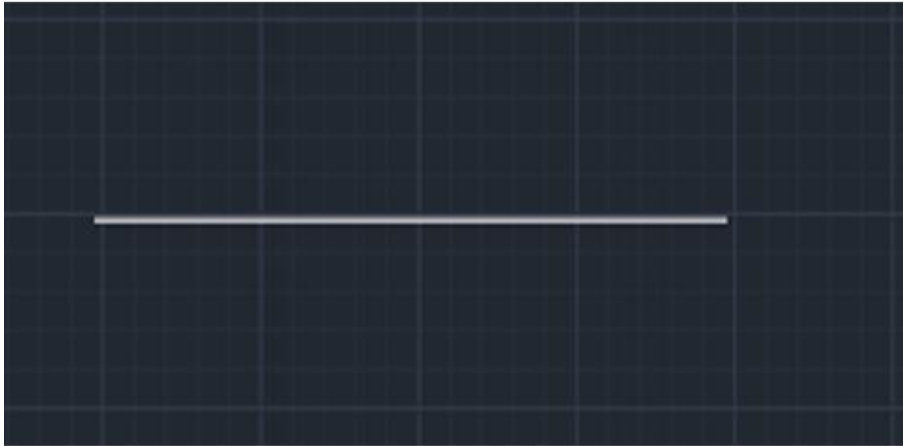




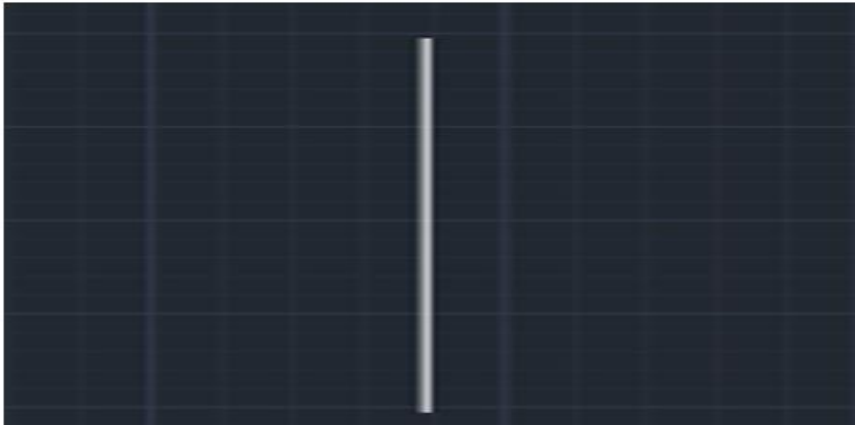
Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

رسم خط مستقيم بطول مقداره ((1000 و بزاويه صفر



رسم خط مستقيم بطول مقداره ((1000 و بزاويه ( 90



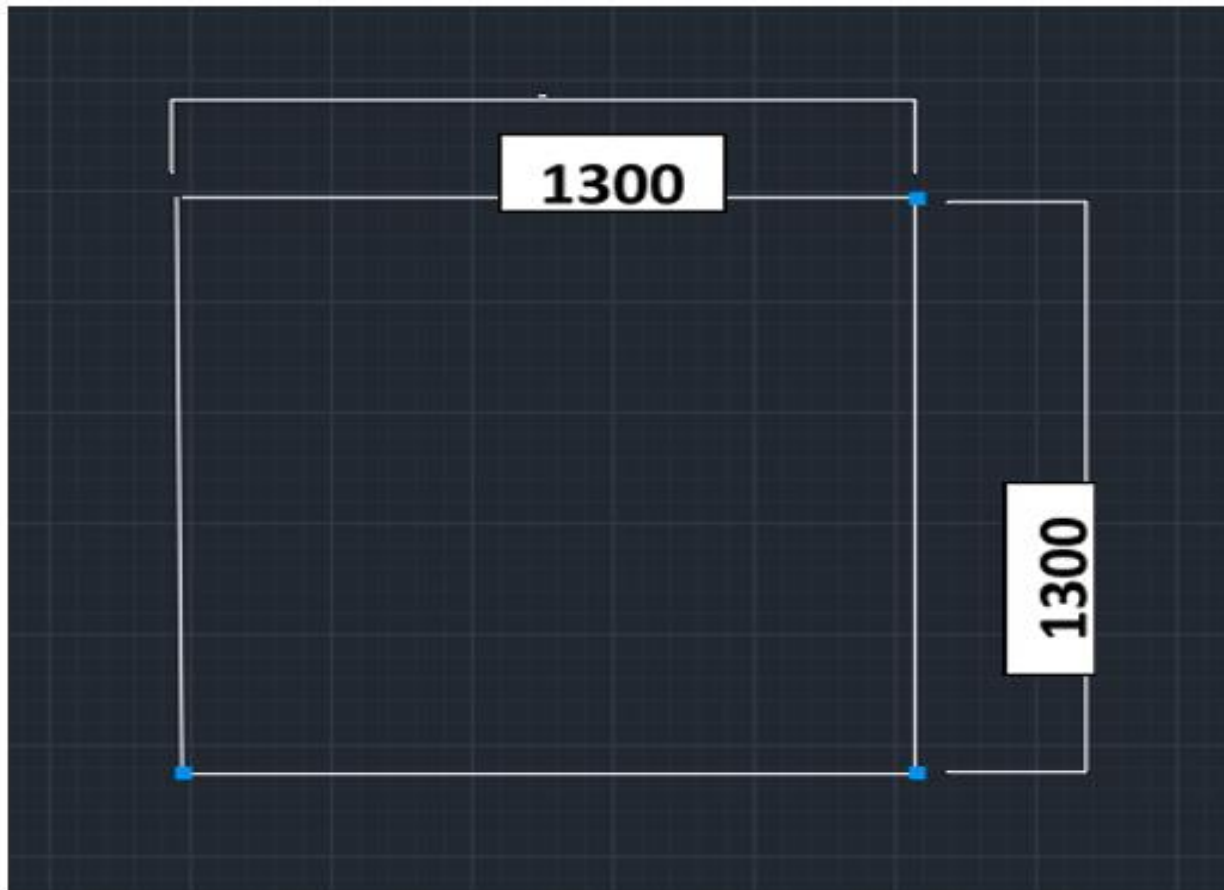




Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

**Draw a square, the length of each side of the square is (1300).**







Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

## Polyline

**This command is used to draw a line composed of multiple lines. There are three ways to achieve this:**

### **Command:**

- 1- Through the drop-down menu bar, where we choose Draw, then Polyline.**
- 2- Through the drawing toolbar, we choose the polyline command.**

**This command is characterized by the fact that it is possible to draw straight lines and arcs connected to each other. This command is also characterized by the fact that it is possible to give a thickness at the beginning of the line that is different from the thickness at its end.**





Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

## Circle

Drawing circles is one of the important commands that can be accessed through several Options are:

Through the **Ribbon bar**, we choose the command (**circle**).

From the drop-down menu bar, we choose the **Draw** menu and choose the **Circle** command.

By typing the shortcut ( **C** ) in the command bar

When you click on **Circle**, several options will appear, as follows:

### Center, Radius

This command is used to draw a circle by selecting the center point and the radius length.

### Center, Diameter

This command is used to draw a circle by selecting the center point and the diameter length.



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

**To start the command Circle:** لتفعيل امر رسم الدائرة

- 1. Select the command from the draw panel**  
اختر الامر من لوحة الرسم كما موضح اليه في السهم
- 2. Type Circle or C in the command bar then ENTER**  
اكتب الكلمة او اول حرف ثم اضغط انتر (ادخال)

بعد تفعيل الامر يمكن رسم الدائرة بعدة طرق:

1. من خلال تحديد مركز الدائرة و نصف قطرها باستخدام الفأرة و/ او لوحة المفاتيح
2. من خلال تحديد مركز الدائرة و قطرها باستخدام الفأرة و/ او لوحة المفاتيح
3. من خلال تحديد نقطتين
4. من خلال تحديد ثلاث نقاط
5. من خلال تحديد مماسين و نصف قطر الدائرة
6. من خلال تحديد ثلاث مماسات

في كل الأحوال يجب الضغط على مفتاح انتر (ادخال) لتنفيذ الامر

ملاحظة: يقوم اوتوكاد بفتح خط جديد حتى بعد رسم الخط الأول: فإذا اردت إيقاف الامر : اضغط Escape



Al-Mustaqbal University  
College Of Engineering Technology  
Department Of Cyber Security Techniques Engineering  
Class: 1<sup>st</sup>

Subject: Drawing engineering  
Lecturer: M.Sc. Afyaa Saad & M.Sc. Zahraa Hussein  
1<sup>st</sup> term – Lecture 3:- Drawing Tool

