














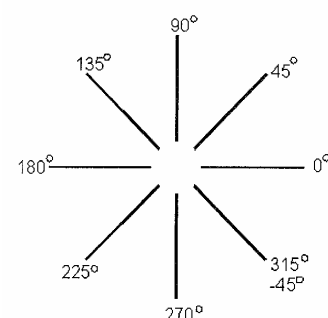













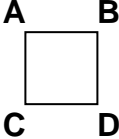
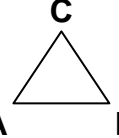










# AutoCAD Quick Reference











The University of Southern Mississippi, Department of Art & Design, Spring 2008



Icon	Command	Abbrev.	Menu Bar / Instructions
<b>DRAWING SETUP &amp; AIDS</b>			
	UNITS	UN	Format > Units > "Architectural" > (select precision) > OK
	LIMITS		Format > Drawing Limits > (0,0) > (select upper right coordinates)
	SAVE		File > Save > (select name & location)
	OPTIONS		Tools > Options <u>Profiles (MISSING MENU &amp; TOOL BARS)</u> > Profiles > (select AutoCAD 2005 Unnamed Profile) > (select Set Current button) > (OK) <u>Auto Save &amp; Backup (.bak)</u> > Open and Save > (select automatic save, set minutes between saves, & select backup copy) <u>Display</u> > Display > (select Colors button) > (select window element and select color)
	LAYER	LA	Format > Layer > (select New button) > (type in layer name) > (select color, linetype, etc.)
	LINETYPE	LT	Format > Linetype > (select Load button) > (select Linetype) > (select Current button) > (OK)
	LTSCALE	LTS	Format > Linetype > (select Linetype) > (select Show Details button) > (select new scale factor) > (OK)
	LINEWEIGHT	LW	Format > Layer > (select Lineweight) > (OK) > (Turn on LWT button on Status Bar)
	SNAP	F9 Key	<b><i>Allows you to only pick exact points/coordinates which lie on a specified regular grid</i></b> Tools > Drafting Settings > Snap and Grid > (set snap spacing) <b><u>OR</u></b> right click snap button Turn on/off with F9 or button on status bar
	GRID	F7 Key	<b><i>Regular pattern of dots for visual aid</i></b> Tools > Drafting Settings > Snap and Grid > (set grid spacing) <b><u>OR</u></b> right click grid button Turn on/off with F7 or button on status bar
	ORTHO	F8 Key	<b><i>Orthogonal: Horizontal/Vertical</i></b> Turn on/off with F8 or button on status bar
	OSNAP	OS F3 Key	<b><i>Allows you to snap onto specific object locations</i></b> Tools > Drafting Settings > Object Snap > (set modes) <b><u>OR</u></b> right click osnap button Turn on/off with F3 or button on status bar
	POLAR	F10 Key	<b><i>Tracks relative polar coordinates</i></b> Tools > Drafting Settings > Object Snap > (set modes) <b><u>OR</u></b> right click polar button Turn on/off with F10 or button on status bar
	OTRACK		<b><i>Shows possible alignments</i></b>






Icon	Command	Abbrev.	Menu Bar / Instructions
	DSETTINGS DDRMODES DDOSNAP	SE	Tools > Drafting Settings > etc... <b>OR</b> right click on status bar
<b>TOOLS</b>			
	Escape Key		Press "Esc" to cancel a command
F6	COORDS	F6 Key	Press F6 key twice to enable coordinate tracking
	ZOOM (All)	Z > A	View > Zoom > All
	ZOOM (Extents)	Z > E	View > Zoom > Extents
	ZOOM (Window)	Z > W	View > Zoom > Window
	ZOOM (Previous)	Z > P	View > Zoom > Previous
	ZOOM (Realtime)	Z > R	View > Zoom > Realtime
	PAN	P	Use icon or scroll bars
	Toolbars		View > Toolbars > (select ACAD under "menu group") > (put a check in the box beside each toolbar you want to display) > Close button
	VIEW	V	(Zoom into area) > View > Named Views > (select New button) > (type name) > (OK)
	DIST	DI	Tools > Inquiry > Distance > (select 1 <sup>st</sup> point) > (select 2 <sup>nd</sup> point)
	AREA	AA	Tools > Inquiry > Area > (specify corner points) > (ENTER)
	CAL		CAL > (enter calculation) <i>Example: 1650/35</i>
F2	Text Window	F2 Key	Displays AutoCAD Text Window
	LIST	LI <b>OR</b> LS	Tools > Inquiry > List > (select object)
	STATUS		Tools > Inquiry > Status
	ID		Tools > Inquiry > ID Point > (select point) <b>Use with Line Command</b> > L > "@distance<angle"
	TIME		Tools > Inquiry > Time
	RENAME	REN	Format > Rename > (select object & item) > (type new name)
	Templates (.dwt files)		Saves dimension styles, text styles, and title blocks.
F1	HELP	F1 Key	Help > Help Topics





Icon	Command	Abbrev.	Menu Bar / Instructions
<b>DRAW COMMANDS</b>			
	LINE	L	Draw > Line > (click on 1st point, 2 <sup>nd</sup> point, etc...) > (ENTER)
	Drawing by coordinates		(specify X-Y coordinate) > (specify distance & move cursor in the desired direction) <b>OR</b> (specify distance & angle of next segment using format of " <b>@distance&lt;angle</b> ") <i>Example: Draw &gt; L &gt; 60'6",8'6" &gt; @56'&lt;180 &gt; @31'&lt;90 &gt; @56'&lt;0 &gt; C</i>
			
	PLINE	PL	Draw > Polyline > (specify points) > (ENTER)
	PEDIT	PE	Modify > Polyline > (select polyline) > (enter option) > (ENTER)
	SPLINE	SPL	Draw > Spline > (specify points) > (ENTER)
	SPLINEDIT	SPE	Modify > Spline > (select spline) > (enter option) > (ENTER)
	MLINE	ML	Draw > Multiline > (select "S" to change distance between lines) > (select points)
	MLSTYLE		Format > Multiline Style
	MLEDIT		Modify > Object > Multiline > (select "cut all" icon) > (OK) > (select points) > (ENTER)
	XLINE	XL	Draw > Construction Line
	CIRCLE	C	Draw > Circle > Center, Radius <b>OR</b> (specify method)
	ARC	A	Draw > Arc > 3 Points <b>OR</b> (specify method) <i>Hint: Use Center, Start, End for door swings</i>
	ELLIPSE	EL	Draw > Ellipse > Axis, End <b>OR</b> (specify method)
	RECTANG	REC	Draw > Rectangle > (specify points) > (ENTER)
	POLYGON	POL	Draw > Polygon > (enter # of sides, specify points, etc...)
	DONUT	DO	Draw > Donut > (specify inside diameter) > (specify outside diameter) > (select point of center) > (ENTER)
	HATCH, BHATCH	H	Draw > Hatch > (follow prompts) > (ENTER) <i>*May need to adjust scale</i>
	HATCHEDIT	HE	Modify > Object > Hatch

Icon	Command	Abbrev.	Menu Bar / Instructions
	SOLID		<p>Square: Draw &gt; Surfaces &gt; 2D Solid &gt; (select point A, B, C, D) &gt; (ENTER)</p> <div style="text-align: center;">  </div> <p>Triangle: Draw &gt; Surfaces &gt; 2D Solid &gt; (select point A, B, C) &gt; (ENTER) &gt; (ENTER)</p> <div style="text-align: center;">  </div>
	SKETCH		SKETCH > 1" > (click and move mouse) * Turn snap off & click mouse to hold pen up/down
	POINT	PO	Draw > Point > Single Point
	DDPTYPE, (PDMODE, PDSIZE)		Format > Point Style
	MEASURE	ME	Draw > Point > Measure > (select object) > (specify length of segment) > (ENTER)
	DIVIDE	DIV	Draw > Point > Divide > (select object) > (enter # of segments) > (ENTER)
	ME/DIV (Block Option)		Draw > Point > Measure/Divide > (select object) > B > (enter name of block) > (specify align block with object) ...
<b>EDIT/MODIFY COMMANDS</b>			
	UNDO	U	Edit > Undo
	REDO		Edit > Redo
	OOPS		(Brings back last erased object)
	ERASE	E	Modify > Erase > (select object) > (ENTER)
	COPY	CP	Modify > Copy > (select objects) > (ENTER)
	MOVE	M	Modify > Move > (select objects) > (ENTER)
	STRETCH	S	Modify > Stretch > (select objects with window) > (ENTER) > (select base point) > (select new point)
	Using GRIPS with lines & objects		Select a line or object > To Move: (select vertex) > (drag to new location) To Stretch: (select grip) > (select new location)
	ROTATE	RO	Modify > Rotate > (select objects) > (ENTER) > (specify base point) > (specify rotation angle)
	MIRROR	MI	Modify > Mirror > (select objects) > (ENTER) > (specify 1 <sup>st</sup> point of mirror line) > (specify 2 <sup>nd</sup> point of mirror line) > (ENTER)
	OFFSET	O	Modify > Offset > (select distance) > (select object) > (select side to offset) > (ENTER)

Icon	Command	Abbrev.	Menu Bar / Instructions
	SCALE	SC	Modify > Scale > (select objects) > (ENTER) > (select base point) > (specify scale factor based on 1) > (ENTER)
	ARRAY	AR	Modify > Array > (select objects) > (select rectangular or polar) > (select # of rows & columns, and row & column offset <b>OR</b> select center point, # of items, and angle to fill)
	BREAK	BR	Modify > Break > (select 1 <sup>st</sup> & 2 <sup>nd</sup> point of break)
	TRIM	TR	Modify > Trim > (select cutting edges) > (select object to trim) > (ENTER)
	EXTEND	EX	Modify > Extend > (select boundary edge) > (select object to extend) > (ENTER)
	LENGTHEN	LEN	Modify > Lengthen > "DY" > (select object) > (select new end point) > (ENTER)
	FILLET	F	Modify > Fillet > R (or specify other type) > (specify distance) > (ENTER) > (select point A, B) > (ENTER)
	CHAMFER	CHA	Modify > Chamfer > D (to select distance) > (specify 1 <sup>st</sup> chamfer distance) > (specify 2 <sup>nd</sup> chamfer distance) > (select 1 <sup>st</sup> & 2 <sup>nd</sup> line)
	EXPLODE	X	Modify > Explode > (select objects/polylines)
	DDMODIFY	PR <b>OR</b> MO	Modify > Properties > (select objects) > (edit properties) > (close window)
	MATCHPROP	MA	Modify > Match Properties > (select source objects) > (select destination objects) > (ENTER)
	UCS	UC	(User Coordinate System) Tools > New UCS <i>Example:</i> UCS > Z > 45
<b>BLOCKS</b>			
	BLOCK	B	*ALWAYS DRAW OBJECT ON "0" LAYER Draw > Block > (type name) > Pick point button > (select insertion point) > Select objects button > (select objects) > (ENTER) > (OK)
	INSERT	I	Insert > Block > (select block) > (select rotation angle) > (OK) > (select insertion point)
	MINSERT		MINSERT > (enter block name) > (specify insertion point) > (ENTER) > (ENTER) > (ENTER) > (specify number of rows) > (specify number of columns) > (enter distance between rows)
	Nested Blocks	B	Draw > Block > (select a group of blocks) > (select name) > (select insertion point)
	GROUP	G	GROUP > (specify name) > (select New button) > (select objects)
	PICKSTYLE		PICKSTYLE > "0"= No Group Selection / "1"= Group Selection <b>OR</b> use EXPLODE to delete group definition
	WBLOCK	W	WBLOCK > (specify name) > (select objects) > (select insertion point) > (ENTER)

Icon	Command	Abbrev.	Menu Bar / Instructions																																									
	ATTDEF	ATT	Draw > Block > Define Attributes > (select from dialogue window)																																									
	ATTDISP		View > Display > Attribute Display > (ON or OFF)																																									
	ATTEDIT/ DDATTE	ATE	Modify > Attribute > Single > (select block) > (make edits)																																									
	Design Center		Tools > AutoCAD Design Center > C: > Program Files > AutoCAD 2006 > Samples > Design Center > (select file – i.e. home space planner) > Blocks > (scroll/drag item to drawing space)																																									
	XREF	XR	Insert > External Reference																																									
<b>ISOMETRIC</b>																																												
	SNAP (Isometric Grid)		Tools > Drafting Settings > Snap and Grid > (select isometric snap) > (ENTER) <u>OR</u> right click snap button & select isometric snap																																									
	F5	F5	Toggles crosshair when in isometric snap/grid mode																																									
<b>TEXT &amp; TABLES</b>																																												
	STYLE	ST	Format > Text Style > New > (select style & “0” for height)																																									
	DTEXT (Dynamic Text)	DT	Draw > Text > Single Line Text > (specify start point) > (specify height) > (specify rotation angle) > (enter text) > (ENTER)																																									
	DDEDIT	ED	Modify > Text > (point to a line of text)																																									
	MTEXT (Paragraph form)	MT <u>OR</u> T	Draw > Text > Multiline Text > (select lower corner) > (select upper corner) > (enter text)																																									
			<p><b><u>Text Heights for Model Space</u></b></p> <table border="1"> <thead> <tr> <th rowspan="2">Plotted Scale</th> <th colspan="6">Text Height (inches)</th> </tr> <tr> <th>3/32</th> <th>1/8</th> <th>3/16</th> <th>1/4</th> <th>1/2</th> <th>3/4</th> </tr> </thead> <tbody> <tr> <td>1/2</td> <td>2.25”</td> <td>3”</td> <td>4.5”</td> <td>6”</td> <td>12”</td> <td>18”</td> </tr> <tr> <td>1/4</td> <td>4.5”</td> <td>6”</td> <td>9”</td> <td>12”</td> <td>24”</td> <td>36”</td> </tr> <tr> <td>1/8</td> <td>9”</td> <td>12”</td> <td>18”</td> <td>24”</td> <td>48”</td> <td>72”</td> </tr> <tr> <td>1/16</td> <td>18”</td> <td>24”</td> <td>36”</td> <td>48”</td> <td>96”</td> <td>144”</td> </tr> </tbody> </table>	Plotted Scale	Text Height (inches)						3/32	1/8	3/16	1/4	1/2	3/4	1/2	2.25”	3”	4.5”	6”	12”	18”	1/4	4.5”	6”	9”	12”	24”	36”	1/8	9”	12”	18”	24”	48”	72”	1/16	18”	24”	36”	48”	96”	144”
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	SPELL	SP	Tools > Spelling > (follow prompts for misspelled words)																																									
	TABLE		Draw > Table > (select table style, insertion method, number of columns/rows & heights) > (OK)																																									
	TABLEDIT (Insert Blocks)		(Use grips, properties, right click, etc... to edit table) (Highlight grips in desired cell) > (right click) > (select “insert block”) > (select block name, cell alignment, uncheck box next to “AutoFit”, and select scale using conversion chart below)																																									

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			<p><b><u>Block Scales for Tables in Paper Space</u></b></p> <table border="1"> <thead> <tr> <th>Plotted Scale</th> <th>Conversion Formula</th> </tr> </thead> <tbody> <tr> <td>1/2"=1'-0"</td> <td>1/12=.0833333/2=.0416</td> </tr> <tr> <td>1/4"=1'-0"</td> <td>1/12=.0833333/4=.0208</td> </tr> <tr> <td>1/8"=1'-0"</td> <td>1/12=.0833333/8=.0104</td> </tr> <tr> <td>1/16"=1'-0"</td> <td>1/12=.0833333/16=.0052</td> </tr> </tbody> </table>	Plotted Scale	Conversion Formula	1/2"=1'-0"	1/12=.0833333/2=.0416	1/4"=1'-0"	1/12=.0833333/4=.0208	1/8"=1'-0"	1/12=.0833333/8=.0104	1/16"=1'-0"	1/12=.0833333/16=.0052																																												
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	DIMSTYLE	D	<p>Format &gt; Dimension Style <b>OR</b> Dimension &gt; Style (select New button) &gt; (specify name, ...) &gt; (select Continue button) &gt;</p> <p><b><u>Lines and Arrows Tab</u></b></p> <table border="0"> <tr> <td>Dimension Lines</td> <td>Extend beyond ticks</td> <td>3</td> </tr> <tr> <td></td> <td>Baseline spacing</td> <td>1</td> </tr> <tr> <td>Extension Lines</td> <td>Extend beyond dim lines</td> <td>3</td> </tr> <tr> <td></td> <td>Offset from origin</td> <td>6</td> </tr> <tr> <td>Arrowheads</td> <td>1<sup>st</sup></td> <td>Arch. tick</td> </tr> <tr> <td></td> <td>Arrow size</td> <td>4</td> </tr> </table> <p><b><u>Text</u></b></p> <table border="0"> <tr> <td>Text Appearance</td> <td>Text style</td> <td>*</td> </tr> <tr> <td></td> <td>Text height</td> <td>6</td> </tr> <tr> <td></td> <td>Fraction height scale</td> <td>.5</td> </tr> <tr> <td>Text Placement</td> <td>Vertical</td> <td>Above</td> </tr> <tr> <td></td> <td>Horizontal</td> <td>Centered</td> </tr> <tr> <td></td> <td>Offset from dim line</td> <td>3</td> </tr> <tr> <td>Text Alignment</td> <td>Aligned with dim line</td> <td>☉</td> </tr> </table> <p><b><u>Primary Units</u></b></p> <table border="0"> <tr> <td>Linear Dimensions</td> <td>Unit format</td> <td>Architectural</td> </tr> <tr> <td></td> <td>Precision</td> <td>**</td> </tr> <tr> <td></td> <td>Fraction format</td> <td>Diagonal</td> </tr> <tr> <td>Zero Suppression</td> <td>0 Feet</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td>0 Inches</td> <td><input type="checkbox"/></td> </tr> </table> <p>*Select desired text style **Same as drawing precision (units)</p>	Dimension Lines	Extend beyond ticks	3		Baseline spacing	1	Extension Lines	Extend beyond dim lines	3		Offset from origin	6	Arrowheads	1 <sup>st</sup>	Arch. tick		Arrow size	4	Text Appearance	Text style	*		Text height	6		Fraction height scale	.5	Text Placement	Vertical	Above		Horizontal	Centered		Offset from dim line	3	Text Alignment	Aligned with dim line	☉	Linear Dimensions	Unit format	Architectural		Precision	**		Fraction format	Diagonal	Zero Suppression	0 Feet	<input checked="" type="checkbox"/>		0 Inches	<input type="checkbox"/>
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	DIMLINEAR	DLI	Dimension > Linear > (select 1 <sup>st</sup> line origin) > (select 2 <sup>nd</sup> line origin) > (specify line location)																																																						
	DIMALIGNED	DAL	Dimension > Aligned > (select 1 <sup>st</sup> line origin) > (select 2 <sup>nd</sup> line origin) > (specify line location)																																																						
	DIMCONTINUE	DCO	Dimension > Continue > (select additional line origins) > (ENTER)																																																						
	QDIM		Dimension > QDIM > (select line) > (ENTER) > (specify line location)																																																						
	DIMTEDIT	DIMTED	Dimension > Align Text > (specify new location)																																																						

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	LEADER	LE	Dimension > Leader > [S > (change settings)] > (specify leader point) > (specify 2 <sup>nd</sup> point) > (specify 3 <sup>rd</sup> point) > (ENTER) > (enter text) > (ENTER) > (ENTER)
	DIMRADIUS	DIMRAD	Dimension > Radius > (select object) > (specify location)
	DIMDIAMETER	DIMDIA	Dimension > Diameter > (select object) > (specify location)
<b>PRINTING/PLOTTING</b>			
	PRINT/PLOT		File > Print/Plot <b><u>Page setup</u></b> <b><u>Printer/plotter</u></b> (select local printer) <b>OR</b> <input checked="" type="checkbox"/> Plot to file <b><u>Paper size</u></b> (select paper size) <b><u>Number of copies</u></b> (select number of copies) <b><u>Plot area</u></b> What to plot: (select Limits, Extents, Display, Window, or View) <b><u>Plot Offset</u></b> Centers/offsets in X or Y direction <b>OR</b> <input checked="" type="checkbox"/> Center the plot <b><u>Plot Scale</u></b> (select scale <b>OR</b> <input checked="" type="checkbox"/> Fit to paper) <b><u>Plot Style table (pen assignments)</u></b> monochrome.ctb <b><u>Drawing orientation</u></b> (select Portrait or Landscape)
	PLOT STYLE		Tools > Wizards > Add Plot Style Table... > (select Next button) > (select "start from scratch" or "use an existing plot style table") > (select Next button) > (specify name) > (select Finish button)
	Layout Wizard		Tools > Wizards > Create Layout... <b><u>Name</u></b> (sheet name/number) <b><u>Printer</u></b> SELECT PRINTER/PLOTTER <b><u>Paper Size</u></b> ARCH D 24 x 36in <b><u>Orientation</u></b> Landscape <b><u>Title Block</u></b> (select title block) <b><u>Define Viewports</u></b> Viewport Setup: <input type="checkbox"/> Single <input type="checkbox"/> Array (select rows, columns & distance between) Viewport Scale: (select scale) <b><u>Pick Location</u></b> (select Select Location button) (specify window) <b><u>Finish</u></b> (select Finish button)
	Viewport Toolbar		View > Toolbars > (select Viewport)

Icon	Command	Abbrev.	Menu Bar / Instructions
	Copy Layout		<p><b>To Copy Layout</b>                      (select layout to copy) &gt; (put cursor on top of Layout Tab) &gt; (right click) &gt; (select "Move or Copy..." option) &gt; (select Layout from list &amp; check box next to "Create a copy")</p> <p><b>To Rename Layout</b>                      (select layout to rename) &gt; (put cursor on top of Layout Tab) &gt; (right click) &gt; (select "Rename" option) &gt; (type in new name)</p>
	TILEMODE		TILEMODE > 0 (paper space) <b>OR</b> Click on Layout Tab TILEMODE > 1 (model space) <b>OR</b> Click on Model Tab
	PAGESETUP		File > Page Setup
	VPORTS		VPORTS > (select single) > (OK) > (specify window)
	-VPORTS		-VPORTS > P > (select points) > (ENTER)
	MSPACE		<p><b>F7</b> turns grid ON or OFF</p> <p><b>Freeze layers</b> in "Current Viewport"</p> <p><b>Scale</b> <b>Zoom</b></p> <p>1/4"=1'-0" Z &gt; 1/48XP</p> <p>1/2"=1'-0" Z &gt; 1/24XP</p> <p>1"=1'-0" Z &gt; 1/12XP</p>
<p>*Before plotting:</p> <ul style="list-style-type: none"> <li>▪ Change viewport windows to a "VIEWPORT" Layer &amp; turn Layer OFF</li> <li>▪ Change LTS (Linetype Scale) for paper space</li> </ul>			