

Type of Function	Function	Usage	Expression Example	Sample Result
Conversion	TO_CHAR	converts a number or date to a string - to_date(string1,[format_mask])	TO_CHAR((SYSDATE),'mm-dd-yyyy')	01-11-2016
Conversion	TO_CHAR	(same as previous)	TO_CHAR((A.ACTION_DT),'mm-dd-yyyy')	June 05, 2012
String	CONCATENATION	Appends/combines two or more literal expressions, column values or variables together into one string - (string1 string2 string_n)	'Major/Minor: ' A.WES_MAJORS ' ' A.WES_MINORS	Major/Minor: MUSC,PHYS/FIL M-MN
String	INITCAP	converts a string to initial capital letters - initcap(string1)	INITCAP(A.WES_MAJORS)	Musc,Phys
String	LOWER	converts a string to all lowercase characters – lower(string1)	LOWER(A.WES_MAJORS)	musc,phys
String	UPPER	converts a string to all uppercase characters – upper(string1)	UPPER(A.CITY)	NEW YORK
String	SUBSTR	extracts a portion of a string or field - SUBSTR(char, position [, substring_length])	SUBSTR(A.WESPO,1,3) – starting field is 93000	930
String	LENGTH	returns the number of characters in a string or field – length(char)	LENGTH(A.WES_MAJORS)	9
Numeric	ROUND	returns a number rounded to x number of decimal points - round(number,[decimal places]) [default is 0]	ROUND(A.CUM_GPA,2) – starting field is 93.635	93.64
Numeric	TRUNC	returns a number truncated to x number of decimal points - trunc(number,[decimal places])	TRUNC(A.CUM_GPA,0) – starting field is 93.635	93
Numeric	CEIL	returns the smallest integer value that is greater than or equal to a number - ceil(number)	CEIL(A.CUM_GPA) – starting field is 93.635	94
Numeric	FLOOR	returns the largest integer value that is equal to or less than a number - floor(number)	FLOOR(A.CUM_GPA) – starting field is 93.635	93
Date and Time	SYSDATE	returns the current system date and time on your local database - sysdate	SYSDATE - where today's date is 01/11/2016	2016-01-11
Date and Time	ADD_MONTHS	returns a date plus n months - add_months(date1,n)	ADD_MONTHS(SYSDATE,3) - where today's date is 01/11/2016	2016-04-11
Date and Time	MONTHS_BETWEEN	returns number of months between two dates - MONTHS_BETWEEN(date1, date2)	MONTHS_BETWEEN(SYSDATE,A.ACTION_DT) - where today's date is 01/11/2016 and ACTION_DT is 06/05/2012	43

Advanced	GREATEST	returns the greatest from a list of one or more expressions - GREATEST(expr [, expr]...)	GREATEST(A.UNT_TAKEN_PGRSS,A.UNT_INPROG_GPA,A.TOT_INPROG_NOGPA) – where UNT_TAKEN_PGRSS = 5.500 and UNT_INPROG_GPA = 4.500 and TOT_INPROG_NOGPA = 1.000	5.500
Advanced	LEAST	returns the least (the smallest) from a list of expressions - LEAST(expr [, expr]...). This function is used for multiple values in the same row. See the MIN function if you want the smallest value from a group of rows.	LEAST(A.UNT_TAKEN_PGRSS,A.UNT_INPROG_GPA,A.TOT_INPROG_NOGPA) – where UNT_TAKEN_PGRSS = 5.500 and UNT_INPROG_GPA = 4.500 and TOT_INPROG_NOGPA = 1.000	1.000
Advanced	NVL	allows substitution of a value when a null value is encountered - NVL(string1, replace_with)	Example 1: NVL(A.WES_MINORS,'No Minor') – where WES_MINORS is null	No Minor
Advanced	NVL	(same as previous)	Example 2: NVL(A.WES_MINORS,'No Minor') – where WES_MINORS = FRST-MN	FRST-MN
Advanced	NVL2	allows the substitution of a value when a null value is encountered, as well as when a non-null value is encountered - NVL2(string1, value_if_not_null, value_if_null)	Example 1: NVL2(A.WES_MINORS,'Minor Yes', 'Minor No') – where WES_MINORS is null	Minor No
Advanced	NVL2	(same as previous)	Example 2: NVL2(A.WES_MINORS,'Minor Yes', 'Minor No') – where WES_MINORS = FRST-MN	Minor Yes
Advanced	ROWNUM	assigns a number indicating the order in which each row is returned by a query	ROWNUM	2931
Advanced	CASE	performs the functionality of an “IF-THEN-ELSE” statement (with greater possibilities than DECODE or COALESCE) –		Undergraduate Student
		CASE	CASE	
		WHEN condition_1 THEN result_1	WHEN A.ACAD_CAREER = 'UGRD' THEN 'Undergraduate Student'	
		WHEN condition_2 THEN result_2	WHEN A.ACAD_CAREER = 'GRAD' THEN 'Graduate Student'	
		WHEN condition_n THEN result_n	WHEN A.ACAD_CAREER = 'GLSP' THEN 'GLSP Student'	
		ELSE result	ELSE 'Check Career'	
		END	END – where ACAD_CAREER is GRAD	
Grouping / Aggregate	AVG	computes the average of values in a column or an expression – avg(number)	AVG(A.TOT_CUMULATIVE)	16.7792
Grouping / Aggregate	COUNT	counts all rows or all rows defined in an expression – count([expr]) or count(*)	COUNT(*)	3241
Grouping / Aggregate	MIN	returns the smallest value from a set of rows	MIN(A.ADMIT_TERM)	1089

Grouping / Aggregate	MAX	identifies the maximum value in a column by the expression	MAX(A.ADMIT_TERM)	1160
Grouping / Aggregate	SUM	computes the sum	SUM(A.CUR_RESIDENT_TERMS)	6
Grouping / Aggregate	SUM	(same as previous)	SUM(A.CUM_RESIDENT_TERMS)	12209
Analytic	COUNT (.....) OVER (PARTITION BY	returns the number of rows in the set – the value repeats for that group/partition	COUNT(A.EXT_ORG_ID)OVER(PARTITION BY A.COUNTRY)	82
Analytic	COUNT (.....) OVER (PARTITION BY	(same as previous)	COUNT(A.EXT_ORG_ID)OVER(PARTITION BY A.EXT_ORG_TYPE)	4772
Date & Time, Conversion	MONTHS_BETWEEN, TO_CHAR, TO_DATE	Age in Years - MONTHS BETWEEN Birthdate and Today	(MONTHS_BETWEEN(TO_DATE(TO_CHAR(SYSDATE, 'YYYY-MM-DD'), 'YYYY-MM-DD'),TO_DATE(A.BIRTHDATE, 'YYYY-MM-DD'))/12)	20
Date & Time, Conversion	TO_CHAR	Format SYSDATE	TO_CHAR((SYSDATE),'mm-dd-yyyy')	01-11-2016
Date & Time, Conversion, Calculation	TO_CHAR	Add 14 to a Date and change format	TO_CHAR((ACTION_DT+14),'mm/dd/yyyy')	06/19/2012
Date & Time, Conversion, Calculation	TO_CHAR	Subtract 14 from a Date and change format to solid caps with embedded spaces	TO_CHAR((ACTION_DT-14),'MONTH DD, YYYY')	MAY 22, 2012
Date & Time, Conversion, Calculation	TO_CHAR	Subtract 14 from a Date and format with initial cap and removing spaces	TO_CHAR((ACTION_DT-14),'fmMonth DD, YYYY')	May 22, 2012
Date & Time, Conversion	TO_CHAR	Military time	TO_CHAR((ACTION_DT),'hh24:mi')	0:00
Date & Time, Conversion	TO_CHAR	Time as AM or PM	TO_CHAR((ACTION_DT),'hh:miAM')	12:00AM
Date & Time, Conversion	TO_CHAR	Display Date as Year (Method1)	TO_CHAR((ACTION_DT),'yyyy')	2012
Date & Time, String	SUBSTR	Display Date as Year (Method 2)	SUBSTR(A.ACTION_DT,1,4)	2012
Conversion, String	CONCATENATION, TO_CHAR	Display text "Cumulative GPA: " and append field	'Cumulative GPA: ' TO_CHAR(A.CUM_GPA,'99.999')	Cumulative GPA: 93.635
String	CONCATENATION	Display and format City, State Zip as one field (if all are USA)	A.CITY ',' A.STATE ' ' A.POSTAL	Middletown, CT 06457
Analytic, String	CASE, CONCATENATION	Display and format City, State and Postal as one field for those that are USA. Display and format City, Postal and Country for those that are not USA	CASE WHEN A.COUNTRY = 'USA' THEN A.CITY ',' A.STATE ' ' A.POSTAL ELSE A.CITY ' ' A.POSTAL ' ' A.COUNTRY END CASE	Arlington, VA 22207

Analytic, String	CASE, CONCATENATION	Same as previous	Same as previous	Bangkok 10110 THA
Analytic, String	CASE, TRIM, CONCATENATION	Display Postal Code as Zip Plus 4 if appropriate	CASE WHEN (A.COUNTRY = 'USA' AND LENGTH(TRIM(A.POSTAL)) = 9) THEN SUBSTR(A.POSTAL,1,5) '-'	06459-1234
Analytic, String	CASE, TRIM, CONCATENATION	Display Postal Code as Zip Plus 4 if appropriate	CASE WHEN (A.COUNTRY = 'USA' AND LENGTH(TRIM(A.POSTAL)) = 9) THEN SUBSTR(A.POSTAL,1,5) '-'	90610
Analytic, String	CASE, CONCATENATION	Display text "Major/Minor: " and append two fields with"/" between if WES_MINORS is not null. Otherwise only display WES.MAJORS	'Major/Minor: ' A.WES_MAJORS CASE WHEN A.WES_MINORS > '' THEN '/' A.WES_MINORS ELSE '' END case	Major/Minor: ENVS,FRST
Analytic, String	CASE, CONCATENATION	Same as previous	Same as previous	Major/Minor: GOVT/CEAS-MN