

University of Windsor Memory Aid information

What a Memory Aid is

A memory aid is typically an 8.5 x 11 piece of paper that:

- Is handwritten or typed
- May include
 - Diagrams
 - Mind maps
 - General formulas
 - Acronyms
 - Pictures
- Can be organized
 - Chronologically
 - Module
 - Chapter
- Only makes sense to the person that created it
- Includes only the information the user cannot remember

What a Memory Aid is NOT

A memory aid is not meant to record all the facts, concepts or processes being tested.

- More than one 8.5 x 11 piece of paper
- Include specific examples of how formulas are used
- Include complete terms and definitions
- Include all the information from the course
- Be created instead of studying



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Memory Aids are testing accommodations to support students who have specific disability documentation that supports the use of a Memory Aid. Memory aids give students an equal opportunity to demonstrate their knowledge in a testing situation by lessening the impact of their disability. This accommodation is not intended to reduce academic requirements or alter the standards by which academic performance is assessed.

Only the mutually agreed upon Memory Aid will be allowed in the test. This means a student cannot bring other course materials into the test.

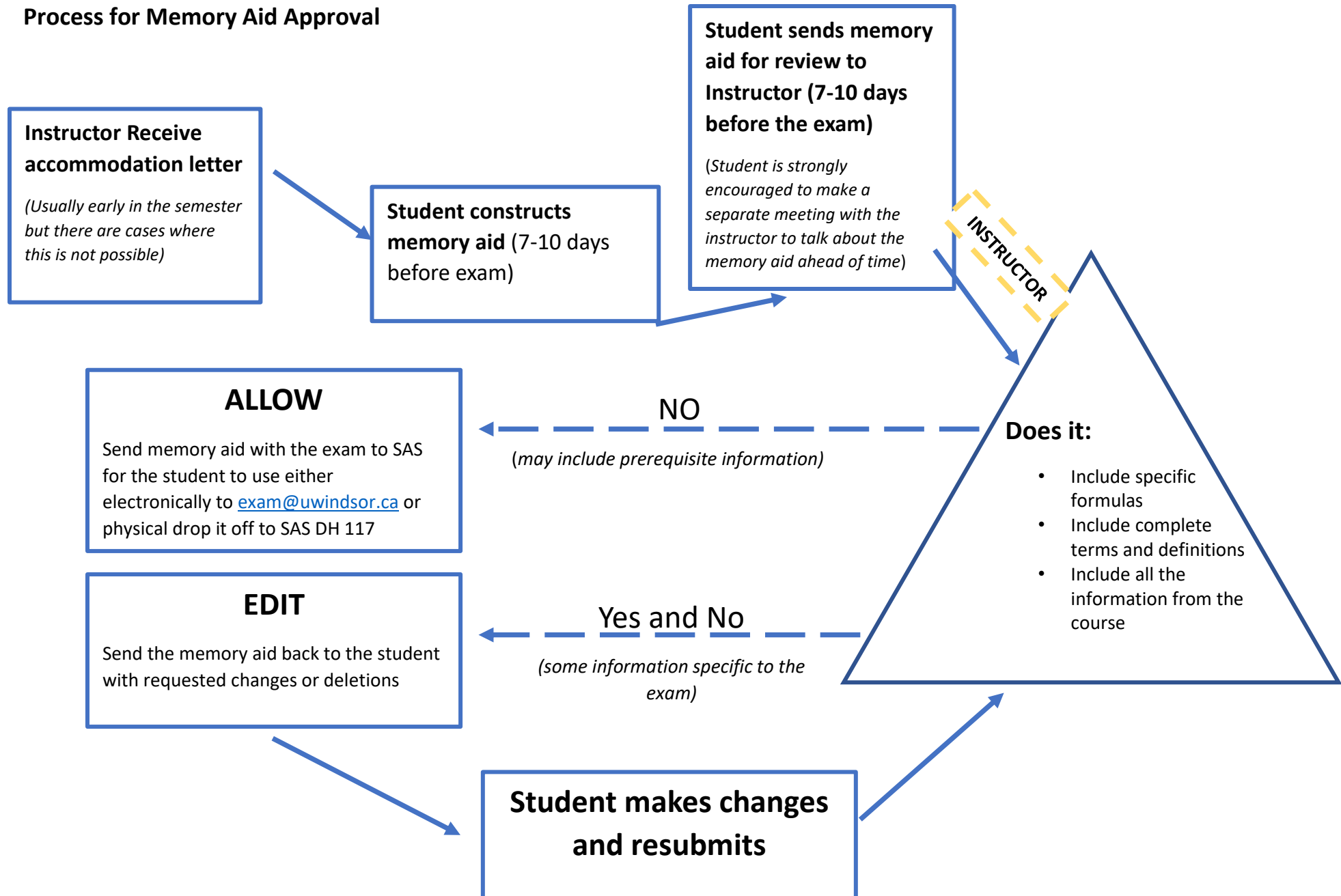
Memory Aid Examples

Acronyms – invented combinations of letters where each letter is a clue to an idea. Example **HOMES** is the acronym for the Great Lakes (**H**uron **O**ntario **M**ichigan **E**rie **S**uperior)

Acrostic - a sentence created where the first letter of each word is a clue to an idea. Example **My Very Eager Mother Just Served Us Nine Pizzas** is an acrostic for the order of the planets

Pictures – small doodles that represent information only to the user

Process for Memory Aid Approval



Examples of Memory Aids

$(\leftarrow) = (\rightarrow) = (\uparrow) = (\downarrow)$
 $F = \text{force}$
 $S = (1 + \text{force}) = 4.5$
 $C = \frac{x}{y} \Rightarrow \left(\frac{x}{y} \right)$
 $I = \text{ice} = \text{melt}$
 $F = \uparrow \downarrow$
 $R = \leftarrow \rightarrow$
 $S = \nearrow \searrow$
 $M = \text{melt}$
 $I = \text{ice} = \text{melt}$
 $\text{core}^{25} = \text{core}$
 $I = \text{ice}$
 $S = 20 + \text{m}$
 $M = \uparrow \text{temp}$
 $P = \text{earth}$
 $(\text{ME})^{\text{X3}}$
 $\text{O or } 0 = \text{zero}$
 $\text{not } \text{ME} / \text{cold}$
 $\text{M} = \text{melt}$
 $\text{V} = \text{volume}$
 $\text{W}(\text{m}) \downarrow \text{temp}$

FACTORS
 cf. group dots, trinomials
 $\frac{x+1}{x-2} \div \frac{x+3}{x-5} \rightarrow \frac{x+1}{x-2} \cdot \frac{x-5}{x+3}$

RATIONAL EXPRESSIONS
 * restrictions
 +/- common denominator
 x multiply all

EQUIVALENCE
 + if 2D shapes are eq
 - Areas are equal
 + if 3D shapes are eq
 - Volumes are equal

QUADRATIC $f(x)$
STANDARD
 $f(x) = A(x-h)^2 + K$
 - opening up/down
 - vertex stretch ($A > 1$) or compression ($A < 1$)
 $h, K \rightarrow$ vertex (axis of symmetry)
 zeros $\rightarrow x = h \pm \sqrt{\frac{-K}{A}}$
GENERAL
 $f(x) = Ax^2 + Bx + C$
 zeros $\rightarrow x = \frac{-B \pm \sqrt{B^2 - 4AC}}{2A}$
 $h = \frac{-B}{2A}$
 $K = \frac{4AC - B^2}{4A}$
 $C = y\text{-int}$
 $A = \text{same for standard}$
FACTORED
 $f(x) = A(x-z_1)(x-z_2)$
 $A \rightarrow$ same as standard
 zeros $\rightarrow z_1, z_2$
DISTANCE B/W TWO POINTS
 $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
 * does not matter which point is (x_1, y_1)

INEQUALITIES / VARIABLES
 use intervals
 Case 1: $ax^2 + bx + c > 0$
 $x \in]-\infty, z_1[\cup]z_2, \infty[$
 Case 2: $ax^2 + bx + c < 0$
 $x \in]z_1, z_2[$
 Case 3: $ax^2 + bx + c \geq 0$
 $x \in]-\infty, z_1] \cup [z_2, \infty[$
 Case 4: $ax^2 + bx + c \leq 0$
 $x \in [z_1, z_2]$

GREATEST INTEGER $F(x)$
 $f(x) = A[b(x-h)] + K$
 $A \rightarrow$ gives vertical distance b/w steps
 $b \rightarrow$ gives length of each step
 $h, K \rightarrow$ starting point
 * always solid dot
 > 0 use \bullet $a < b > 0$ steps go up
 < 0 use \circ $a < b < 0$ steps go down
 x always round down

LINEAR $F(x)$
STANDARD
 $y = mx + b$
 $m = \frac{y_2 - y_1}{x_2 - x_1}$
 $m \rightarrow$ slope
 $b = y_1 - m \cdot x_1$
 $b \rightarrow y\text{-int}$
 $x\text{-int} = -\frac{b}{m}$
SYMMETRIC
 $\frac{x}{a} + \frac{y}{b} = 1$
 $m = -\frac{b}{a}$
 $b = y\text{-int}$
 $a = x\text{-int}$
 * NO decimals or fractions in denom.

GENERAL
 $Ax + By + C = 0$
 $m = -\frac{A}{B}$
 $b = \frac{-C}{B}$
 * NO decimals or fractions

PARALLEL LINES
 share same slope

PERPENDICULAR LINES
 meet at a 90° angle
 slopes are negative reciprocal

NON-OBLIQUE LINES
 zero slope
 undefined slope

SYSTEMS OF EQN
SCENARIOS
 1 solution (linear)
 intersect @ a int
 infinite solutions (linear)
 incident
 0 solutions (linear)
 parallel & distinct
 2 solutions (semi-linear)
 0 solutions (semi-linear)
 1 solution (semi-linear)

INEQUALITIES
 $y \geq 3x + 1$
 $y > 3x + 1$
 $y \leq 3x + 1$
 $y < 3x + 1$
 $y \geq x^2 + x + 1$
 $y > x^2 + x + 1$

AREAS
 square = s^2
 triangle = $\frac{b \cdot h}{2}$
 rhombus = $\frac{(d_1 \cdot d_2)}{2}$
 reg. polygon = $\frac{sa^2}{2}$
 rectangle = $b \cdot h$
 parallelogram = $b \cdot h$
 trapezoid = $\frac{(b_1 + b_2) \cdot h}{2}$
 circle = πr^2

TOTAL AREAS
 Prism = $(Pb \cdot h) + 2(Ab)$
 Cylinder = $(2\pi r h) + (2\pi r^2)$
 Pyramid = $(\frac{Pb \cdot s}{2}) + (Ab)$
 Cone = $(\pi r s) + (\pi r^2)$
 Sphere = $4\pi r^2$
 Hemisphere = $2\pi r^2$

VOLUMES

