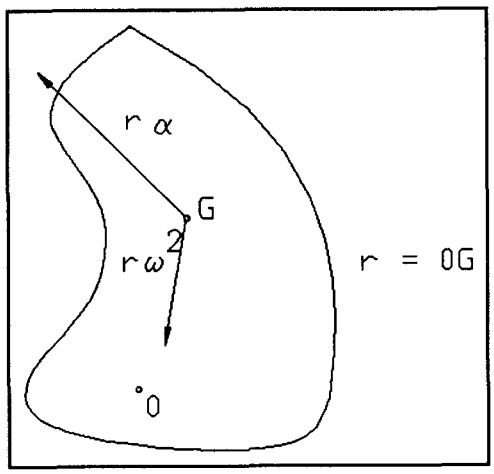
SUMMARY DYNAMICS MODULE N8

SUBJECT	EQUATION	DISCUSSION
Rigid Body Motion	$\Sigma \bar{F} = m\bar{a}$	Motion of a rigid body due to forces applied
	$\Sigma \bar{M}_a = \frac{d\bar{H}_G}{dt}$	to it may be expressed by ma at the CG and a moment H_G about CG.
Angular	$\bar{H}_G = I_G \bar{\omega}$	I_G - moment of inertia about CG.
	$\frac{d\bar{H}_G}{dt} = I_G \alpha$	
Non-Centroidal Rotation	$a_{t_G} = r\alpha$	
	$a_{nG} = r\omega^2$	
	$\Sigma M_0 = I_0 \alpha$	



WORDS TO KNOW MAJOR MODULE 8

1. Center of Gravity - that point in a body at which its weight may be taken to act and about which the body could be balanced, though placed in any position.

2. Center of Mass - that point in a body where any imaginary plane or real (if possible) could pass through the body and divide it into two equal parts of equal mass. The Center of Mass is also where the resultant force acts due to the body's inertia, when it is accelerated.

3. Inertia - that property of a body which tends to resist a change in the body's motion, whether the body is at rest or already in motion.