HAAS
ADVANCED MILL PROGRAMMING
COURSE OUTLINE

♦ **SUBROUTINES vs SUB PROGRAMS**

    A. M97
    B. M98
    C. SUBPROGRAM LOGIC
    D. DEPTH OF SUBPROGRAMS

♦ **STEP and REPEAT**

    A. Use of Subprogram
    B. Use of "L" for Repeating

♦ **ROTATION**

    A. Use of G68
    B. Use of G69
    C. Work Coordinate Shift

♦ **MIRROR IMAGE**

    A. Use of G101
    B. Use of G100
    C. Work Coordinate Shift

♦ **POCKET MILLING with ISLANDS**

    A. G150
    B. Use of G41 and G42
    C. Use of G150 in a Subprogram

♦ **PLANE SELECTION**

    A.   G18 - XZ
    B.   G19 - YZ

♦ **THREAD MILLING**

    A.   Hole preparation
    B.   Thread Calculations
    C.   Tool placement calculations
    D.   Helical Interpolation
    E.   Helical interpolation and looping for deep holes

► **PROGRAMMABLE OFFSETS**
    A.   G10 L2 – WORK OFFSETS
    B.   G10 L10 – TOOL OFFSETS
    C.   G10 L12 – TOOL DIAM.