

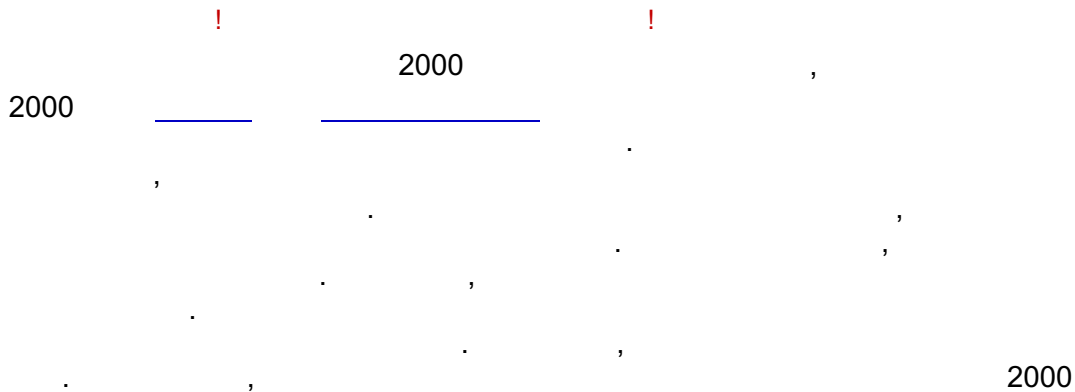


ENGINEERING DESIGN AND PROFESSIONAL PRACTICE

DESN2000-CVEN Term 3, 2020

COURSE DETAILS

Units of Credit 6



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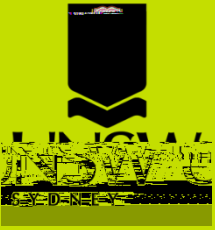
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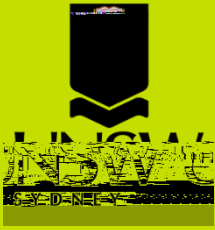
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ENGINEERING DESIGN AND PROFESSIONAL PRACTICE

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. # 6E+, ' &! 5' , ' %+. !C' &+5, ! .# ,)' , ! 2+) / ! C& . +1*+, ' V&1' . +. ! .# ,)' ,)@!!
B/ ' !5' , ' %+. !& ' .) +, ! =# . \$&' &! # , ! 6 - 11+, 5! .# ,)' H)\$- *! +, =# 6 -) +, !+, . *\$C+, 5! / \$ 6 - , V. ' ,)% ' C! C' &+5, a!
- , - *! &+! #! =! F- % ! +, 5!) ! 1' &! #! =! +, =# 6 -) +, a! .% ' -) +F' ! 6 ') / #C&! =#% !) - , &* -) +, 5!) / ' ! +, =# 6 -) +, !+, !)#!
C' &+5, ! .# , . ' 1)! &! .# 6 6 \$, +. -) +, !# =! / ' ! +, =# 6 -) +, a! - , C! ' F- *\$-)# , ! 6 ') / #C&! =#% ! - , - *! &+, 5!) / ' !
F- *+C+) ! #! =! / ' ! C' &+5, ! 1%# 1#& - * &@!

%<\$&'&%<&!+8+'!+78"\$9*"+"7 ' ' ' !*+, 3!) #!F+%)\$-*/ - , CE##3"!

D, ! 8 (R [: ; SQ! !#\$! - . J\$+% ' C! - ! = ' 2! , ' 2! &3+*!) / -) ! !#\$! - 11*+ ' C!+, !)' / ' ! &#*\$) +, !# =! - ! .# 6 1* ' H! 1% - .) . - *!
1%#E* ' 6 @! (, ' !# =!) / ' ! &3+*!) / -) ! !#\$! C& . #F' % ' C! +&! !#\$! +, , -) ' ! -E*+) !)# ! * -% , !E- &' C! # , ! , ' ' C@! G# \$!
- * &! #! ' - *+ &' C!) / -) ! !#\$! -% ' ! -E* ' !)# ! &#F' ! 1%#E* ' 6 &!) / -) ! 6 - ! / -F' ! &' , !)#! ! .# 6 1*+ . -) C!+, !)' / ' !
E' 5+, , +, 5!E\$) ! 1%#F' , !)#! E' ! = \$* ! ! &#F- E* ' ! 2+) / !) / ' ! / *! ! #! =! ! !#\$! , ' 2*! - . J\$+% ' C! &3+*! - , C!) / ' ! 1# 2' %!
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B/+&!)' % 6! !#\$! 2+*!) - 3' ! !#\$! ' , 5+, ' '%+, 5! &3+*! &! # , ' ! &)' 1! = \$) / ' % ! - &! !#\$! &#F' ! - !% ' - *! 2#% C! . / - **' , 5' !
2+) / !) / ' ! / *! ! #! =! - , !' F' , !E+55' % ! - , C!E'))' % !)' - 6 @!

M' ! 2+*! &) - %) ! E! ! \$, C' % &) - , C+, 5! - , C! \$ + , 5! C' &+5, !) / +, 3+, 5!) #! . # 6' ! \$! 1 2+) / ! - ! 1%#K' .) =#% ! / ' !)' % 6 @!
M' ! 2+*!) / ' , ! / # , ' !#\$! #5- , +&-) +, - *! &3+*! E! ! * -% , +, 5!) / ' ! E- &+ . &! # =! 1%#K' .) ! 6 - , -5' 6 ' ,) @! B/ +&! 2+*!
/ ' *! 1! 1* - , , +, 5! - ! &) - %) ' 5! !) #! &#F' !) / ' ! . / - **' , 5' ! # =!) / ' ! &' 6 ' &)' % @! M/ +* ' ! !#\$! 1* - , ! - , C! + 6 1* ' 6 ' , !
!#\$%&' &) - %) ' 5! ! !#\$! *! * -% , ! =#\$! + , F- *\$ - E* ' ! ' , 5+, ' '%+, 5! &3+*! &' ! F' % - 5+, 5! # 1' , ! &# \$. ' ! / - % C2 - % ' <!) / ' !
E- &+ . &! # =!)' . / , +. - *! C% - 2+, 5! \$ + , 5! " [7 <! E- &+ . ! > " X! C' &+5, ! - , C! + 6 1* ' 6 ' ,) +, 5! !#\$! C' &+5, ! \$ + , 5! T7!
1%+,) +, 5! - , C! #) / ' % ! . # 6 1\$)' % ! - &&+ &)' C! 6 - . / +, +, 5!) . / , +J\$' &@! B/ % # \$ 5 / # \$) ! / ' ! &' 6 ' &)' % ! !#\$! 2+*!
2#%3! # , ! !#\$! 1%#K' .) ! - &! - !) - 6! - 11*+ , 5!) / ' &' ! &3+*! 1* \$ &! - , ! !#) / ' % &) / -) ! !#\$! 2+*! - . J\$+% ' ! # , ! !#\$!
2 , !E- &' C! # , !) / ' ! , ' ' C&! # =!) / ' ! 1%#K' .) @! [&! !#\$! 2+*! E' !) - . 3*+, 5! - !% ' - *! 2#% C! 1%#E* ' 6 <!) / ' % ' ! &! , #!
1% ' C' = , ' C! 2 - ! !) #! &#F' ! + <!) / +&! &! 1% ' . & *! ! 2 / -) ! 6 - 3' &!) = \$, c! B' - 6 2#%3! 2+*! E' ! +, &) \$ 6 ' ,) - *! + , !
5') +, 5!) #! - , ! # 1) + 6 - *! &# \$) +, @! G# \$! 2+*! / - F' ! - ! . / - , . ' !) #! -) ' ! !#\$!)' - 6 6 -)' &! 1' % =# 6 - , . ' ! - !) / ' !
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Workshops

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 -&&#.+ -)'C!'H'%.+&'&!-+6'C!-)C'F' *#1+,5!\$,C'(%&)- ,C+,5!#=#!)/'!.\$%&'!6-)'%+ -*&@!7'6#, &)%-)#%&!
 -%'!-F-+* -E*'!)#!1%#F+C'!5\$+C- ,.'!- ,C!&\$11#%!)!' -6&!+,!)/'+%!1%#K' .)C'F' *#16' ,)@!

!
 7' &+5, !2#%3&/#1&!2+**!=#. \$&!#, !.#, . '1)&!- ,C!1+). /+, 5@!M#%3&/#1&!-%'!'!+)'%'!C' *+F'%'C!+, !1' %&# ,!
 #%!F+-!#, *+, '!)##*&<C' 1' ,C+,5!#, !!#\$%!' ,%#* 6' ,)@!d#%!) /'!'*-))' %! I#\$!2+**! =+, C! *+, 3&!)#! /' &'!& &+ #, &
 #, !I#\$%! . * -&&! . / - , , '*!+, !A8!B' - 6&!+, !C\$'!.#\$%&'@!M#%3&/#1!5\$+C' &!=#%! -**! . * -&&'&!-%'!' - *&#! 6 -C'!
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Teaching strategies

B / ' !=#**#2+, 5!)' - . /+, 5!&)%-)' 5+' &!2+**!E'!\$&'C!+, !)/'!.\$%&'_!

R' .)\$%' &!	<ul style="list-style-type: none"> ⊘ 8' '!6')/#C&<! 'H- 61*' &!- ,C!- %5\$6' ,)&!) /-)!-%'! ,)#!+, !)/'!)'H)E##3! ⊘ R' -% , !.#, . '1)&!E' /+, C!6')/#C&!- ,C!'H- 61*' &! ⊘ R' -% , !.#66\$, +. -)#, !)' . / , +J\$' &!- ,C!'% /' - %&'!)/' 6!+, !%' *' F- ,)! 1%#=#' &&+ #, - *!=#%6 -)&!
M#%3&/#1&!	<ul style="list-style-type: none"> ⊘ X' !5\$+C' C!E!C' 6#, &)%-)#%&! ⊘ >%- .) +. '!' , 5+, ' '%+, 5!C' &+5, !6')/#C&! ⊘ M#%3!2+!/1' '%&!)#! - 11*! !)/' #'%) +. - *! . #, . '1)&!2+)/+, !%' - *+&)+. ! C' &+5, !&. ' , - %+#&!
>%+F-)'!&)\$C!!	<ul style="list-style-type: none"> ⊘ ? 'F+' 2!' *' .)\$%'!6-)' %+ -*!- ,C!) 'H)E##3&! ⊘ 7#!1%#K' .) !2#%3! ⊘ N' ' 1! -!C' &+5, !(#\$% , - *! ⊘ L&'!B' - 6&!=#%!C& . \$&&+ #, &! ⊘ 7#2 , *#-C! . * -&&! , #)' &!=#%6!B' - 6&! ⊘ ? '= *' .)#, !1%#E* ' 6&!- ,C!- &&+5 , 6' ,)&!
[&&' &&6' ,)&!	<ul style="list-style-type: none"> ⊘ 7' 6#, &)%-)' !3, #2* ' C5' !- , C!&3+**&! ⊘ 7' 6#, &)%-)' !/ +5/ '%!\$, C' (%&)- , C+, 5!- , C!1%#E* ' 6!&#*F+, 5! ⊘ 7' 6#, &)%-)' !' , 5+, ' '%+, 5!C' &+5, !. - 1 -E+*)+ ' &!

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C; 7>23!63!%>3=0!D!E: ? B0>019F!%>31<32<7! : 2!) 2: 6077! : 13!\$ 1=610027!37!78: H1!!, 80!6; 44!467>! : 6!%>3=0!
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Class Topics

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