*5$'8$7(678'(17 +$1'%22.

'HSDUWPHQW RI %LRORJLFDO
+DUS&RROHJH RI $UWV DQG 6F
%LQJKDPWRQ 8QLYHUVLW\
6WDWH 8QLYHUVLW\ RI 1HZ
%LQJKDPWRQ 1HZ <RUN

7$%/(2) &217(176
7$%/(2) &217(176
:(/&20(
(77,1 67$57('
*UDGXDWH 6FKRRO 2ULHQWDWLRQ ,QIRUPDWLRQ
'HSDUWPHQW 2ULHQWDWLRQ
*UDGXDWH 6FKRRO 2ULHQWDWLRQ
,QWHUQDWLRQDO 6WXGHQW DQG 6FKRODU 6HUYLFHV ,666 2ULH
'HSDUWPHQW .LFN
*5$'8$7(678'(17 5(6325,%,/,7,(6
8QLYHUVLW\ $FDGHPLF 3ROLFLHV DQG 3URFHGXUHV 6WXGH
(QUROOPHQW DQG 5HJLVWUDWLRQ
$FDGHPLF 3ROLFLHV 0DVWHU¶V 'HJUHH
$FDGHPLF 3ROLFLHV 'RFWRUDO 'HJUHH
6SHDNLQJ DQG :ULWLQJ (QJOLVK
.(<6 72 68&&(66 ,1 *5$'8$7(678',(6
&DUHHU 'HYHORSPHQW
<285 $'9,625
'(3$570(17 +2856 $1')$&8/7< 9,/$%,/,7<
%,2/2*< *5$'8$7(678'(17 25*$1,=$7,21 %*62
2)),&(63$&(.(<6
5(6325,%/(&21'8&7 2) 5(6($5&+
$XWKRUVKLS
'DWD &ROOHFWLRQ
/DERUDWRU\ 7UDLQLQJ
5HVHDUFK ZLWK $QLPDOV
+XPDQ 6XEMHFWV
$GGLWLRQDO &RQVLGHUDWLRQ
0$67(5 2) $576 7+(25(7,&$/ 352*5$0
'HJUHH 5HTXLUHPHQWV
0$67(5 2) 6&,(1&(7+(6,6 352*5$0
'HJUHH 5HTXLUHPHQWV
%$&+(/25¶6 67(5¶6 352*5$0
:KDW LV WKH 0D\DWHFKU¶VRS¶VRJUDP"
6WHSV IRU (QWUDQFH LQWR WKH 3URJUDP

'2&725 2) 3+,/2623+< 352*5$0

'HJUHH 5HTXLUHPHQWV

6DPS5HHJLVWUDWLRQ 3DWK3WR6&RXQGHW&RPSOHWH

&(57,),&$7(,1 &2//(*(7($&+,1*

&2676 $1')81',1*

7($&+,1* *5$'8$7($66,67$176+,36

6HOHFWLRQ

2ULHQWDWLRQ IRU 7HDFKLQJ 6WDQ

5HFRPPHQGHG 5HDGLQJ hQyQ!

5(6($5&+

(77,1 67$57('

*UDGXDWH 6FKRRO 1HZ 6WXGHQW ,QIRUPDWLRQ

2QFH \RX KDYH SDLG WKH *RXU GDWD 6FKRRO SURYLGHV D OLVW R
SUHSDUH WR EHJLQ \RXU JUDGXDWH VWXGHQW GDWD FROOHFWLRQ
L H VWXGHQW ,' FDUG \RXU VFKRRO HPDLO DFFRXQW

'HSDUWPHQW 2ULHQWDWLRQ

7R S

'(3$570(17 +2856 $1')$&8/7< 9,/$%,/,7<
7KH %LRORJLFDO 6FLHQFHV GLYLVLRQ RI LFH DVPRSWHQ S P &R
IDFXOW\ HWDLO LV UHFRPPHQGHG WR WKH PDLQ RIILFH TXHVW
IDFXOW\ DYDLODEOH DW WKLV QXUVH DUH DOVR DLODE
SDJH

7R S

%,2/2*< *5$'8$7(678'(17 25*$1,=$7,21 %*62
7KH %LROR\ *UDGXDWH 6WXGHQWV 2UJDQL]DWLRQ G%6 2 H LVW
LQ WKH %LRORJLFDO 6FLHQFHV ZKR DUH DOVR DIILOLDWHG ZLWK WKH
WKH 8QLYHUVLW\ 7KH %*62 VHUYHV DV D VRXUFH RI LQIRUP
I 0

RJ JUK @HL

DFWLYLW\ DUH FRQVLGHUHG PLVFRQGXFW 6FLHQWLILF PLV
SODJLDULVP GHFHSWLRQ RU RWKHU GHYLDWLRQV IURP DFFH
DQ\HRQLQ WKH 'HSDUWPHQW ZLOO EH KDQGOHG DFFRUGLQJ WR
RXWOLQHG LQ WKH \RXU &RQGXFW LQ 5HVHDUFK 3ROLF\ RUDSSOLFDEOH 36U RXU GHG

$XWKRUVKLS

$XWKRUVKLS UHTXLUHV D VLJQLILFDQW LQWHOOHFWXDO RU
RWKHU VFLHQWLILF RUJDQL]DWLRQV KDYH D ³FRGH RI HWKLF
LV D VUX\PWDR KHOS JXLGH \RX

%DVHG RQ WKH (FRORJLFDORRHFWLKRXQWDSHULFZZVHD RUJ H
JRYHUQDFRHHWKDXWKRUVKLS LV MXVWLILHG LI D SHUVRQ K
VXFK DV

x FRQFHLYHG WKH GHVLJQ RI WKH H[SHULPHQWV
x SDUWLFLSDWHG LQ WKH H[HFXWLRQ RI WKH VWXG\
x DQDO\]HG DQG LQWHUSUHWHG WKH GDWD
x ZURWH WKH PDQXVFULSW
x RU VRPH FRPELQDWLRQ RI WKHVH

$OVR DXWKRUVKLS PD\ EH MXVWLILHG E\ REWDLQLQJ UHVRX
UHTXHVWHG E\ RXWOLQLQJ WKH JHQHUDOVRUPVSXHLFGLDQFHHHDQH
GHYHORSPHQW RI WKH SURMHFW

3HUVRQV VKRXOG QRW EH LQFOXGHG DV DXWKRUV LI IRU H[
VHUYLFHV IRUSDLGHHWHUFKQLFDO ZRUN RU DGYLFH LQ D QDUU
ZKR VKRXOG EH DQ DXWKRU RU WKH RUGHU RI DXWKRUVKLS
LQYROYHG

'DWD &ROOHFWLRQ

*DWKHULQJ GDWD DQG UHWDLQLQJ QHQXWDPFRVXWDLWSRUHFRQGHV LDQUH
LQFUHDVLQJO\ IHGHUDO IXQGLQJ DJHQFLHV UHTXLUH FRQGXHWHG XULFRQJG
FROOHFWHG IRU JUDQWV EH DUFKLYHG DQG PDGH DYDLODEO

%DVHGHRUQHSRUW ³5HVSRQVLEOH 6FLHQFH (QVXU>L@KHWUHHDQM
VRPH JXLGHOLQHV

&XVWRG\ RI DOO RULJLQDO GDWD VKRXOG EH UHWDLQHG E
DSSOLHV WR JUDGXDWH VWXGHQWV RU RWKHUV ZKR WHUPLQDWH
IDFXOW\ :KHQ JUDGXDWH VWXGHQWV OHDYH WKH SURJU

0$67(5 2) $5716217+(6,6 352*5$0

7KH DVWURQRPHU LV GHVLJQHG IRU VWXGHQWV ZKR Z
WKH ELRORJLFDO VFLHQFHV SULPDULO\ WKURXJK FRXUVHZRU
\HDU (QWHULQJ VWXGHQWV PD\ FKRRVH HLWKHU

7UDFN D IILOLDWHG ZLWK WKH 86 'HSDUWPHQW RI
7UDFN E SUHSDUHV IRU WUDQVIHU WR D %DFKHORU RI 6FLHQFH SURJUDP

%RWK WUDFNV UHTXLUH WKH FRPSOHWLRQ RI WKH DGYLVH

7KH VWHSV WR OHDG \RX WKURXJK WKH HQWLUH SURFHVV RI H[SODQDWLRQ RI WKH DFWLYLW\ DQG RU IRUPV UHTXLUHG W

&RPSOHWH \RXU VSHFLDO SURMHFW DV GHILQHG E\ \RXU D

&RPSOHWH WKH UHTXLUHG FRXUVH FUHGLWV

'HFODUH \RXU LQWHQW WR JUDGXDWH LQ WKH VHPHVWHU LQ ZKLFK \RX SODQ WR FRPSOHWH \RXU ODVW UHTXLUHG FRXUVH 6FKRRO UHTXLUHPHQWV DQG GHDGOLQHV YDU\ VR EH VXUH WR FRQVXOW
FRPSOHWH GHWDLOV RI WKH SURMHFW RU PDWHULDOV UHTXLUHG
D FXPXODWLYH *3$ RI OHVV WKDQ ZLOO SUHYHQW \RX IU

'HJUHH 5HTXLUHPHQWV

7KH GDWH RI 1RYHPEHU UHTXLUHPHQWV YDULHV VOLJKWO\ WKH IROO

$ PLQLPXP RI FUHGLW KRXUV EH\RQG WKH EDFKHORU¶V
0DVWHU RI *UDGXDWH $FFXPXODWLYH *3$ RI DW OHDVW RQ D WRWDO RI 7KHVH PXVW LQFOXGH
FUHGLW KRXUV RI WKHVLV RU SURMHFW DQG FUHGLW %,2/

FUHGLW KRXUV RI HS D W PH QW DR QH H U R H U W H VW H U
DGGLWLRQDO FUHGLWV RI ; ZLOO QRW EH DSSOLH

7KH SURIHVVLRQDO H[SHULHQFH ZRUNHG'EDUWPHQWDO 6HF
IRU WZR VHPHVWHUV RU WZR \HDUV KHU H[SHULHQFHV L H RU
VWXGHQW¶V DGYLVRU LI FRQIOLFWV SUHYHQW WKH VWXGH

7KH SURMHFW PDLEVKHRSVKUHXJKDILFRXUWLRQWEHQWKJDI
SHUPLVVLRQ RU DVKXRU 0 FDSVWRQH FRXUVH E\ SHUPLV
7KH SURMHFW PXEHWDSHQ IXOILOOLQJ WKH UHTXLUHPH

7R S

0$67(52) 6&,(1&(+(76,6 352*5$0

7KH SXUSRVH RI RXU 0DVWHU RI 6FLHQFHV 'HJUHH LV WR SU
SURMHFW \RX EHJLQ GXULQJ WKH SURMHFW ZLOO QHFHVVLWDWH FDUHI
ODERUDWRU\ DQG RU ILHOG WHFKQLTXHV SUHOLPLQDU\ GDW
FROOHFWLRQ DQG DQDO\VLV D ZULWWHQ SURSRVDO VXEPLWWHG
RUDO SUHVHQWDWLRQ DQG DQ RUDO H[DPLQDWLRQ E\ D VXSHUYLVRU\
HQWHULQJ VWXGHQWV DUH H[SHFWHG WR KDYH D EDFNJURXQG
8VXDOO\ WKLV IRU VXJJHVWV D UHVHDUFK SURMHFW ZKLFK DO
GHYHORSLQJ WKH NH\ VNLOOV QHHGHG IRU WKLV GHJUHH $
VWXGHQW &RXUVHZRUN LV VHFRQGDU\ WR WKH UHVHDUFK DQG WKDQ
SULPDU\ IRFXV RI WKH GHJUHH SURJUDP

7KH VWHSV WR OHDG \RX WKURXJK WKH SURJUDP DUH EHORZ
H[SODQDWLRQ RI WKH WHUPV DVVRFLDWHG ZLWK HDFK VWHS
DYDLODEOH IURP WKH *UDGXDWH 6HFUHWDULDW RQ WKH 3URSRVDO
)RUP WHE SDJH

%$&+(/25¶06$67(5¶36352*5$0

:KDWWLKH%DFKHORUVWHU¶V SURJUDP"
7KH SURJUDP LV GHVLJQHG IRU H[FHSWLRQDO %LQJKDPWRQ
EDFKHORU¶V DQG PDVWHU¶V GHJUHHV LQ ILYH \HDUV 6WXGHQ
PDVWHU¶V DW WKH HQG RI WKH SURJUDP 7KH UHTXLUHPHQ
DUH L WV L|V

x

'2&725 2) 3+,/26233+5<2*5$0

7KH 3K' LV D UHVHDUFK GHJUHH WKDW UHTXLUHV VWXGHQWV WR
VHPHVWHUV RI FRXUVHZRUN DQG D GLVVHUWDWLRQ ZKLFK
UHVHDUFK SURJUDP LQWR D VSHFLDOL]HG DUHD RI

7KH VWHSV WR OHDG \RX WKURXJK WKH SURJUDP DUH EHORZ
H[SODQDWLRQ RI WKH DFWLYLW\ DQG ZKDW LW LQYROYHV
DYDLODEOH IURP WKH *UDGXDWH 6FKRRO\ WKH GHSDUWPH
)RUPV WHE SDJH

$WWHQG DQ RULHQWDWLRQ ZHELQDU WR OHDUQ DERXW GLVVHUWDWLRQ RSWLRQV DQG WKH SURFHVV RI W

,GHQWLI\ SRWHQWLDO &RPPLWWHH PHPEHUV RI WKH ILUVW VHPHVWHU

$WWHQG SRVW GRFWRUDO UHVHDUFK WKHVLV EHJLQQLQJ RI \RXU VHFRQG VHP

,I \RX DUH D GRPHVWLF VWXGHQW DQG \RXU UHVLGHQFH LV
1HZ <RUN 6WDWH UHVLGHQW WXLWLRQ RI \RXU
SURFHVV VXFK DV DSSOLFDWLRQ IRUPV

$WWHQG GHSDUWPHQW UHVHDUFK 0HHWLQJV

&RPSOHWH RQ\RXU WUDQVFULSW EHORZ EGXHLQQLQJ R‰„$€E Pa''

OW

UHTXLUHRG LWKHP VUDGXDWH 6FKRRO RI VUZHVSRLQWH LE WR HQV
FRPSOHWHG RWKHUZLVH RPSOHWH RU PVVLQJ JUDGHV DFRXQW
D FXPXODWLYH *3$ RI OHVV WKDQ ZLOO SUHYHQW \RX IU

5HTXHVW DSSURYDO RU ([HRQHUDWH ZLWK WKH *UDGXDWH 6

3UHSDUHG G\RXU WUDQVFULSW DQG D VHPLQDU WKDW LV RSHQ
H[DPLQDWLRQ E\ \RXU FRPPLWWHH

6XEPLW \RXU ILQDO GLVVHUWDWLRQ FKHFN HOHFWURQLF DQG GHOLQHDWLRQ 1HZ(:KLOH WKH *UDGXDWH 6FKRRO QR ORQJHU S
DFTXLULQJ ERXQG FRSLHV RI \RXU SDSHU WKH\ ZLOO SURY
ERXQG FRSLHV WKURXJK RXWVLGH VRXUFHV QRW %HFDXVH
ERXQG FRS\

'HJUHH 5HTXLUHPHQWV

:KLOH QRW PDQGDWRU\ EHFRPLQJ FRXUVH FRPSOHWH E\ WK
EHQHILW ERWK \RX DQG WKH &LWL]HQV $GYLFH %XUHDX FRPPLWV WR
DQG DOORZV WKH GHSDUWPHQW WR FRQWLQXH WR RIIHU D V

7KH EHORZ LV RQH RI WKH DJUHHPHQWV WKDW \RX* DQG WKH &LWL]HQV $GYLFH %XUHDX KDYH WR IXOILOO
LQGLYLGXDO QHHGV

&(57,),&$7(1 ,&2//(*(7($&+,1*

&ROOHJH XQLYHUVLWLHV IUHTXHQWO\ GHYHORS VWDWHG SROLFLHV WR
DV ZHOO DV UHVHDUFK 7KH *UDGXDWH 6FKRRO SURYLGHV W
ZLOOLQJ WR FRPSHWH D VHW RI DFWLYLWLHV DQG FRXUVHZ
FHUWLILFDWH WHDFKHUV DQG UHVHDUFKHUV WKH FROOHJH XQLYHUVLW\ OHYHO

*UDGXDWH 6FKRRO $ZDUGV

9LVLW WKHLU $ZDUGV 3URJUDP SDJH YDULDQW RSWLRQV 1RWH \RX KDYH WR EH QRPLQDWHG E\ IDFXOW\ &RQWDFW WKH *UDGXDWH 6HFUHWDU\ ZLWK TXHVWLRQV

'HSDUWPHQW $ZDUGV

7KLV GHSDUWPHQWDO DZDUG SURYLGHV D IHZ KXQGUHG GROODUV WR VXSSRUW UHVHDUFK DW D VFLHQWLILF PHHWLQJ RU GXULQJ D VXPPHU LQWHUQVKLS GXUDWLRQ WKDW GRHV QRW FRQIOLFW ZLWK WKH VSULQJ VHPHVWHU

&RQWLQXLQJ 6WXGHQWV

6WXGHQWV FRQWLQXLQJ WR WUHJLVWHU WR VHH DOO RSWLRQV

PRQWKV SULRU WR WKH VWDUW RI WKH VHPHVWHU RQ RSHQ [DP

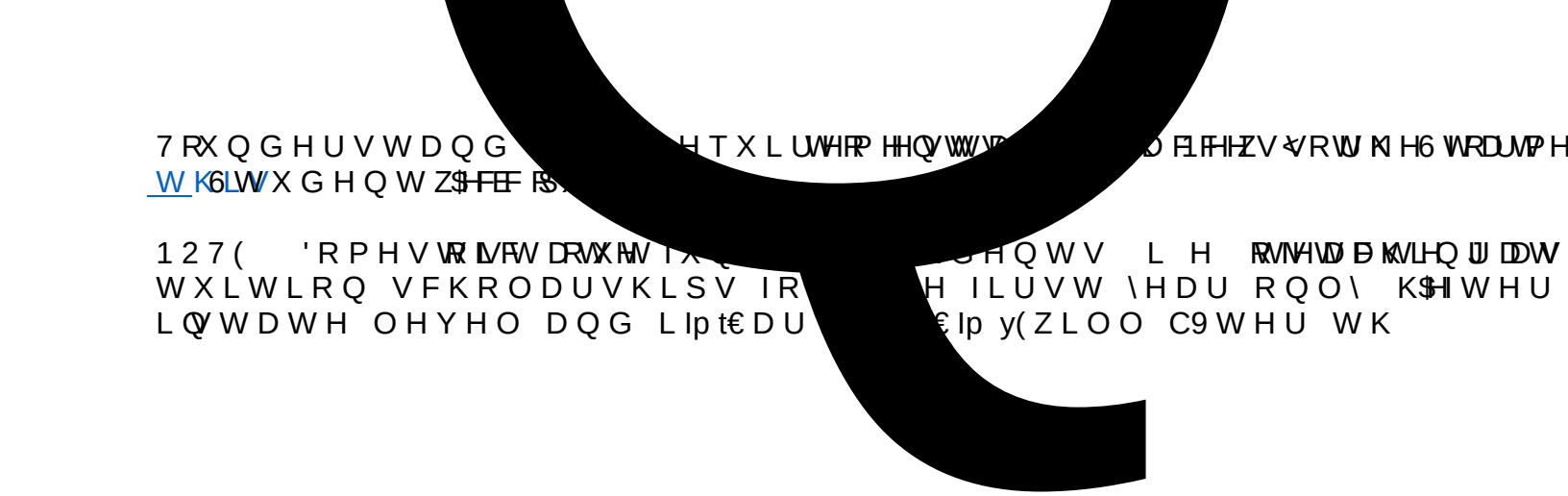
7KLV SHULRG VHH DWRQ LOO EH RSHQ DE[RWH DW [DP

VHPHVWHU KLJKO\ UHFRPPHQGHG WKDW DOO FRQWLQXLQJ

SHULRG

&RQILUPDWLRQ RI (QUROOPHQW

$OJQU DGXDWXGHQWV DUHö•þKTÖ`EMJHGDGRORRÐ•6W J QWV UHJLVW¡/



)DOO HVQUHGKHHWKH EHJLQQLQJ RI WKH IRXUWK VHPHVWHU RQ-DQXDU\
6SULQJ HQUROOPHQW JLQQLQJ RI WKH IRXUWK VHPHVWHU 7KH VWXGHQW¶V &RPPLWWHH OF
WKUHH H[HFXWLYH RIILFHUV WKDW VHUYH RQ WKH VHPHVWHU IROORZLQJ Z
ZLOO HIIHFWLYHO\ EH WKH 06 SURJUDP RU LI DVVLJQHG WKH DVVLVWDQW
UHPRYHG IURP WKH JUDGXDWH SURJUDP

)RU H[FHSWLRQDO FLUFXPVWDQFHV EH\RQG WKH VKRXOG SHWLWLRQ
SHWLWLRQHUV RU WKH 6XSHUYLVRU\ &RPPLWWHH &KDLUPDQ WR
VFKHGXOH D KHDULQJ H[FXVH LI LW RFFXUV GXULQJ WKH
UHFRPPHQGHG WKDW XSRQ &RPSOHWLRQ RI WKH
DGYDQFHG GHJUHH GDWHV

)RU VWXG\ WKH 6XSHUYLVRU\ &RPPLWWHH RI
SURYLGHV VWXGHQWV ZLWK WKH OLVWQG UHFRPPHQGHG
DYDLODEOH ZLWK WKH,Q*UDGGXDWH &RXUVH
0HHWKLQJ HDUO\ LQ WKH IWUVHVWLVHPHVWHU 7KH

7ZR RU PRUH[WRRWHDV SRVVLEOHQWKHU WKH
VSHFLDOW\ VHFWLRQDV 7KHKVWHGHSDUWPHQWDO IXOILOO WKH UH

7KH UHVXHOHFWQF RQWDUHQ WKH *UDGXDWH &RUH
SXUSRV7KHVGHWQW ZLOO EH LQIRUPHG RI WKH UHVXOWV E\ WKH
&RPPLWWHH

,I WKH VWXGHQW IDLOV WKH ILUVW DWWHPSWRH WKH FRQP
PRQWKVRRSQHUFRQG IDLOXUH PHDQV WKDW WKH VWXGHQW
6XSHUYLVRU\ &RPPLWWHH DSQGUPDGLDOWHWKHPVWXGHQW¶V
WUDFN LI RULJLQDOO\ HQWHUHG ZLWK D EDFKHORU¶V GHJUH

%DFN WR 3K' 3URJUDP

$QQXDO 3UHVHQWDWLRQ DW 'HSDUWPHQW /HYHO RU +LJKHU
%HJLQQLQJ WKH WK LQG GHDFWLYDWHG UHTXLUHPHQWU HVHD
DPQQXDOO\ $ YDULHFWHSRIDYEHQHLQFDQGHGDWHJRDWV ”@P`H

\RX DQG DOO DWWHQGHHV WR DOORZ WKH FRPPLWWHH WR G
PXVW UDHFHLYHG DW OHDVW WHQ 6KHUL&RPPLWWHH

,I DW WKH ILQDO H[DPLQDWLRQ WKHUH DUH QR \HW SUHSDUHG WR VLJQ WKH FRPPLWWHH ZLOO FRRUGLQDWH ZLWK RWKHU PHPEHUV DQG ZLOO LQIRUP WKH VWXGHQW RI WKH VFRSH DQG VXEVWD KRZ WKH FKDQJHV ZLOO EH UHYLHZHG DQG DSSURYHG

)ROORZLQJ WKH RUDO H[DPLQDWLRQ DQG DSSURYDO RI JU VXEPLWV WR WKH *UDGXDWH 6FKRRO WKH VWXGHQW KDV QR LQGLFDWLQJ WKDW WKH VWXGHQW KDV QR VXFFHVVIXOO\ GHG WKH

7KH 'HDQ RI WKH *UDGXDWH 6FKRRO RU KLV RU KHU GHVLJQHH ZLWK WKH SROLFLHV DQG SURFHGXUHV RI WKH *UDGXDWH 6F

6XEPLW \RXU ILQDO WKHVLV HOHFWURQLFDOO\ WR WKH GHDGOLQHV

%DFN WR 06 3URJUDP

3K'2XWVLGH ([DPLQHU
7KH RXWVLGH H[DPLQHU UHDGV WKH GLVVHUWDWLRQ DQG PHPEHU GXULQJ WKH 7KHVRXWVLGH H[DPLQDWLRQ

3K''LVVWHDWLRQ 3UHSDUDWLRQ DQG 'HIHQVH

7KH GYLVRU\ &RPPLWWHH DQG JLYH DSSURYDO EHIRUH WKH GLVV
WKH 6XSHUYLVRU\ &RPPLWWHH WR HVWDEOLVK D SURJUDP RI HGL
UHFHLYH QHZ JUDQWV RU WR DGRSW D ILU
DV HDUO\ DV SRVVLEOH LQ WKH VHPHVWHU DQG WKH DXWKRUL
WKH 6XSHUYLVRU\ &RPPLWWHH 2FWREHU (DFK PHPEHU OHDVW WZR ZHH
GLVVHUWDWLRQ SULRU WR WKH RUDO H[DP

7KH GLVVHUWDWLRQ LV WR FRPSO\ ZLWK WKH *UDGXDWH 6FKRRO¶V 7KHVLV 'LVVHUWDWLRQ *XLGHOLQHV DQG
7KHVLV 'LVVHUWDWLRQ ZKHEUVDJHR ZLVKHUWDWLRQV ZULWWHQ E
JUDGXDWHV WKH *UDGXDWH 6FKRRO RI
HOHFWURQLF HBQWKHV XQGHUWDWLRQ ZHEVDJH VHDUF

<RXU 6XSHUYLVRU\ &RPPLWWHH DQG WKH DSSURYHG 2XWVLG
&RPPLWWHH ZLWK(KDUHQW&RPPLWWHH WR HVWDEOXGDSGDWH W
KROG \RXU GHIHQVH $OORZ \RXUVHOI WLPH EHIRUHKDQG W
6HFUHWDU\ FDQ DVVLVW ZLWK VHFXULQJ D URRP IRU \RX (
PHHWLQJ UHGDUXWHGSRQJXLGQXQFH UHJDUGLQJ WKH QHH
LI \RX KDYH D FRPPLWWHH PHPEHU RXWVLGH7KLHXQHUHXHDE
WKH H[SHFWDWLRQVRIVKDQYSUXFDSWLRQ DW \RXU GHIHQVH

<RX RUD\GRXLVKDOO SURYLGH WZR ZHHN*UDGXDGH6HFUHWDU
GHIHQVH PHHWLQJ GHWDLOV GLVRQHJUZLWKLPQKHWREWUDFWHR
GHSDUWPHQW PHPEHUV DQG JUDGXDWH6WXGHQWV DW WKH

<RX DUH ZHOFRPH WR LQYLWH \RXU IDPLO\ DQG IULHQGV WR
VHPLQDU UHTXLUHPHQW EDVHG RQ \RXU UHVHDUFK 7KH VHF
GHWDLOV DQG LPSOLFDWLRQV RI W[KHPLUQ&RPHDUWKH2ZLFOHFRP
DQG DOO DWWHQGHHV GLVSXOVDQWKH FRPPLWWHH WR