



Password Security

Complexity with originality

Passwords are the key

- It is important to use complex passwords to protect SFA information systems from outside intruders.
- While many people often use the name of a family member, pet, or even a car as part of their password, this is not recommended. Hackers can easily obtain this information about a person and use it to gain access to the system.

Original combination guidelines

- Your password must not be a variation of your name or username and cannot be the same as any of the passwords you have used in the past fifteen months.
- All passwords must be at least eight characters.
- Your passwords must have at least one alphabetic character, a through z, and contain a mix of upper and lower case characters.
- They must also contain one numeric character, between zero and nine, and should not have any spaces.
- In addition, your password should contain at least one special character, that is, any character that is not a letter or number.
- Passwords should be as random as possible to minimize the likelihood a potential hacker can figure it out.

How do you remember complex passwords?

- **Phrase association**
 - Creating a mnemonic device from a phrase or sentence can help you remember a complex password.
- **Alphanumeric Combination**
 - One way to do this is to use a key calendar date as a format for creating your passwords.
- **Letter/Number Association**
 - Many people find it easier to remember a random password if it can be associated with something they already know.
- **Keyboard Pattern**
 - A great way to design a password that means absolutely nothing to you, but is easy for you to remember.

Phrase Association - Example

- For example, Iw2ba*Td, can be created from the sentence "I want to be a star today."
 - The capital I and T fulfill the capital letter requirement and the number two and star symbol are used for the required numeric and special characters.
- Another example, Icw82Cmd!, is derived from the sentence "I can't wait to see my dog!".
 - The number eight is used to complete the word "wait" and the number two is used instead of the word "to" so the password is more complex.
 - An exclamation point is added at the end to fulfill the special character requirement.

Alphanumeric combination-Example

- For example, anniversaries, the expected arrival date of a new baby, or a quarterly deadline are dates you will likely remember.
 - If your final report is due on July 12, using the password Frd=0712 will be easy to remember and serve as a constant reminder of your deadline.
 - Similarly, using the password cAbd=0806 will help you remember your cousin Andy's birthday is on August 6. Just knowing that your password involves your cousin Andy and his birthday will enable you to remember this pattern.

Letter/Number Association - Example

- If you know the order of the planets, the order of U.S. presidential terms, or when each state became a state, this can help you choose a pattern to follow when identifying a password.
 - For example, by knowing that Saturn is the sixth planet from the sun, you can create the password %@turN=6.
 - Similarly, the password 89-93GhwB(41) can be used if you know George Herbert Walker Bush was the forty-first president and was in office from 1989 to 1993.
- Choosing an alphanumeric combination associated with something you have already memorized will increase the likelihood you will remember the random pattern.
- You can also use the same pattern, altering the elements involved, each time you are required to change your password.

Keyboard Pattern - Example

- Using your keyboard, choose a pattern of key-strokes combining alpha, numeric, and special characters to help you remember your password.
 - For example, start with a capital N at the bottom of your keyboard and use a vertical pattern upward, including h and y.
 - When you get to the number line, use the symbol on the six key to fulfill your special character requirement.
 - Then move horizontally to the right using the next four numbers, 7890.
 - You have now created a completely random password, Nhy^7890, using a simple pattern on your keyboard that you will likely remember.
- Choose a pattern easy for you to remember and alter it slightly each time you must change your password.

Passwords are only valuable if you are able to remember them

- While complex passwords often seem difficult to remember, there are several hints that will help you create strong passwords and remember them later.
- Using tricks like phrase association, specific alphanumeric combinations and associations, and keyboard patterns will help you create passwords that are random and complex, but easy for you to remember.

Password Requirements

- Not a variation of your name
- Has not been used in last 3 times
- Contains a minimum of 8 characters
- Contains at least 1 alphabetic character (a-z)
- Contains a mix of upper/lower case characters
- Contains at least 1 numeric character (0-9)
- Does not contain spaces
- Contains at least 1 special character (e.g., ` ~ ! @ # \$)

Knowledge Check

1. Which of the following are strong passwords:

- a. Admin
- b. P@ssword
- c. c0mputer
- d. schoolhouse
- e. \$ecurity
- f. \$jeIF2bb
- g. sfasu
- h. mysecret

Knowledge Check

2. A secure password for access to your computer network is one that has at least eight letters.

TRUE or FALSE

3. Password security depends upon more than just the number of letters.

True or False

4. If a hacker gets access to my password, my computer is the only thing impacted.

True or False