Setting Strong Passwords

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Responsible Department:	Information Technology
Security Framework References:	NIST: PR.AC-1; PR.AC-2; PR.AC-3; PR.AC4; PR.AC-5; PR.AT-2; PR.AT-5 CSC: 5.1; 5.6; 5.7; 5.8; 5.9

A strong password is one that considers the following attributes:

1. Length. GVSU systems allow for varying lengths for passwords.
    - Faculty and Staff network passwords should be a minimum of 12 or more characters in length.
    - Student network passwords should be a minimum of 16 or more characters in length.
2. Phrases. Use words or phrases that are easy for you to remember, but difficult for others to guess.
3. Combination of characters. Adding in an uppercase, lowercase, number, or symbol increases password strength.

Password Creation Do's:

- Is a series of words and/or additional characters that create a phrase.
- Is significantly different from previous passphrases.
- Strong passwords and passphrases may contain characters from each of the following four categories: uppercase letters, lowercase letters, numbers and symbols.
- Protect your passwords using a password manager tool.

Password Creation Don'ts:

- Avoid names.
- Avoid birthdays.
- Avoid common phrases.
- Avoid using your user name, real name or company name.
- Avoid using the same password for all accounts.
- Do not give your password to anyone.
- Do not send passwords via email.
- Do not type passwords on computers you do not control. Public computers can be loaded with keystroke logging applications to capture what others have typed.

What do you do if your password is stolen?

1. Contact the Helpdesk immediately for all GVSU accounts
2. Change your password
3. Monitor your accounts if it is a home account

Example of strong passphrase:

What makes a passphrase stronger today is length. The longer the passphrase, the longer it takes hackers to crack it. Strong passphrase using multiple words put together are much stronger than the old philosophy of shorter, more complicate passwords using different character sets.

Old example using all four character sets (lowercase, uppercase, numbers and special characters):

- Tr0ub4dor&3 - which can be cracked in three days by a computer and is hard to remember for the user

New example using passphrase or multiple words put together:

- Correcthorsebatterystaple - which takes 553 years to crack by a computer but is easier for the user to remember

Note: GVSU faculty/staff accounts currently require 3 out of the 4 characters sets to be used in the current password creation. You can still take advantage of the passphrase methodology using uppercase, lowercase, numbers and special characters, which increases the strength of the passphrase.