

Substitution cipher instructions

First, import the modules translit and string.

Python: `import translit, string`

1. **Define string of encrypted text.** Include spaces and punctuations.
Python: `s=" .... " or s=" " " .... " " "`
2. **Define the encryption alphabet.** Convention: the encrypted message is in capital letters.
Python: `enc=string.ascii_uppercase`
3. **Define a decryption alphabet.** For now, it is the same as the encryption alphabet.
Python: `dec = enc`
4. **Perform a frequency analysis.** Count the number of occurrence of single letters and group of two/three letters.
Python: `translit.count_letters(s), translit.count_word2(s), translit.count_word3(s)`
Use the frequency table (below) to make an educated guess for one letter of the decryption alphabet.

Letter	a	b	c	d	e	f	g	h	i	j	k	l	m
Percentage	8.2	1.5	2.8	4.3	12.7	2.2	2	6.1	7	0.2	0.7	4	2.4
Letter	n	o	p	q	r	s	t	u	v	w	x	y	z
Percentage	6.7	7.5	1.9	0.1	6	6.3	9.1	2.8	1	2.4	0.2	2	0.1

Python: `string.replace(dec,'A','a')`

5. **Decrypt the message with the new alphabet.**
Python: `translit.translit(s,dec)`
6. **Repeat for another letter.**