

Syncopated 16th note Study

Complete set of 16th note cells

Label	Rhythm
A	1e&a
B	1e&-
C	1e-a
D	1-&a
E	-e&a
F	1e--
G	1-&-
H	1--a
I	-e&-
J	-e-a
K	--&a
L	1---
M	-e--
N	--&-
O	---a
Z	----

1. Get to know each core syncopated cell

C C C C = 1e-a2e-a3e-a4e-a

E E E E = -e&a-e&a-e&a-e&a

F F F F = 1e--2e--3e--4e--

J J J J = -e-a-e-a-e-a-e-a

2. Pair each one with A

A C A C = 1e&a2e-a3e&a4e-a

C A C A = 1e-a2e&a3e-a4e&a

A C C A = 1e&a2e-a3e-a4e&a

C A A C = 1e-a2e&a3e&a4e-a

A E A E = 1e&a-e&a3e&a-e&a

E A E A = -e&a2e&a-e&a4e&a

A E E A = 1e&a-e&a-e&a4e&a

E A A E	=	$-e^2e^3e^{-e}$
A F A F	=	$1e^2e^{-3e^4e^{-}}$
F A F A	=	$1e^{-2e^3e^{-4e^a}}$
A F F A	=	$1e^2e^{-3e^{-4e^a}}$
F A A F	=	$1e^{-2e^3e^4e^{-}}$
A J A J	=	$1e^a-e-a^3e^a-e-a$
J A J A	=	$-e-a^2e^a-e-a^4e^a$
A J J A	=	$1e^a-e-a-e-a^4e^a$
J A A J	=	$-e-a^2e^3e^a-e-a$

3. Combine two syncopated cells

C E C E	=	$1e-a-e^3e^{-e^a}$
E C E C	=	$-e^2e^{-a-e^4e^{-a}}$
C E E C	=	$1e-a-e^a-e^4e^{-a}$
E C C E	=	$-e^2e^{-a^3e^{-e^a}}$
C F C F	=	$1e-a^2e^{-3e^{-a^4e^{-}}$
F C F C	=	$1e^{-2e^{-a^3e^{-4e^{-a}}}}$
C F F C	=	$1e-a^2e^{-3e^{-4e^{-a}}}$
F C C F	=	$1e^{-2e^{-a^3e^{-a^4e^{-}}$
C J C J	=	$1e-a-e-a^3e^{-a-e-a}$
J C J C	=	$-e-a^2e^{-a-e-a^4e^{-a}}$
C J J C	=	$1e-a-e-a-e-a^4e^{-a}$
J C C J	=	$-e-a^2e^{-a^3e^{-a-e-a}}$
E F E F	=	$-e^2e^{-e^4e^{-}}$
F E F E	=	$1e^{-e^3e^{-e^a}}$

E F F E	=	-e&a2e--3e---e&a
F E E F	=	1e---e&a-e&a4e--
E J E J	=	-e&a-e-a-e&a-e-a
J E J E	=	-e-a-e&a-e-a-e&a
E J J E	=	-e&a-e-a-e-a-e&a
J E E J	=	-e-a-e&a-e&a-e-a
F J F J	=	1e---e-a3e---e-a
J F J F	=	-e-a2e---e-a4e--
F J J F	=	1e---e-a-e-a4e--
J F F J	=	-e-a2e--3e---e-a

4. Break the repetition

C E F J	=	1e-a-e&a3e---e-a
J F E C	=	-e-a2e---e&a4e-a
C J F E	=	1e-a-e-a3e---e&a
E F J C	=	-e&a2e---e-a4e-a

5. Bring A back into phrases

C E A E	=	1e-a-e&a3e&a-e&a
E A E C	=	-e&a2e&a-e&a4e-a
C A F J	=	1e-a2e&a3e---e-a
J F A C	=	-e-a2e--3e&a4e-a
A E C F	=	1e&a-e&a3e-a4e--
F C E A	=	1e--2e-a-e&a4e&a
C E A Z	=	1e-a-e&a3e&a----
Z A E C	=	----2e&a-e&a4e-a

6. Get to know the other two-attack syncopated cells

H H H H = 1--a2--a3--a4--a

I I I I = -e&--e&--e&--e&-

K K K K = --&a--&a--&a--&a

7. Combine these with A, C, E, F, J

A H C H = 1e&a2--a3e-a4--a

H C H A = 1--a2e-a3--a4e&a

E I A I = -e&a-e&-3e&a-e&-

I A I E = -e&-2e&a-e&--e&a

F K J K = 1e----&a-e-a--&a

K J K F = --&a-e-a--&a4e--

C H E I = 1e-a2--a-e&a-e&-

I E H C = -e&--e&a3--a4e-a

8. Get to know the one-attack syncopated cells

M M M M = -e---e---e---e--

N N N N = --&---&---&---&-

O O O O = ---a---a---a---a

9. Combine them with familiar cells

A M C M = 1e&a-e--3e-a-e--

M C M A = -e--2e-a-e--4e&a

A N E N = 1e&a--&--e&a--&-

N E N A = --&---e&a--&-4e&a

A O F O = 1e&a---a3e-----a
 O F O A = ---a2e-----a4e&a
 C M E N = 1e-a-e---e&a--&-
 N E M C = --&--e&a-e--4e-a
 F O J M = 1e-----a-e-a-e--
 M J O F = -e---e-a---a4e--

10. Get to know the reference/grounding cells

B B B B = 1e&-2e&-3e&-4e&-
 D D D D = 1-&a2-&a3-&a4-&a
 G G G G = 1-&-2-&-3-&-4-&-
 L L L L = 1---2---3---4---

11. Mix the entire vocabulary

Syncopation-focused: C E F H I J K M N O
 Reference/grounding: A B D G L
 Silence: Z

C B E G = 1e-a2e&--e&a4-&-
 G E B C = 1-&--e&a3e&-4e-a
 A J D F = 1e&a-e-a3-&a4e--
 F D J A = 1e--2-&a-e-a4e&a
 H L E K = 1--a2-----e&a--&a
 K E L H = --&a-e&a3---4--a
 C Z M A = 1e-a-----e--4e&a
 A M Z C = 1e&a-e-----4e-a
 N D O E = --&-2-&a---a-e&a

E O D N = -e&a---a3-&a--&-
 D C D C = 1-&a2e-a3-&a4e-a
 C C A F = 1e-a2e-a3e&a4e--
 C E E A = 1e-a-e&a-e&a4e&a
 J L J L = -e-a2-----e-a4---

Suggested Rhythms for Jazz Improvisation:

C A C A = 1e-a2e&a3e-a4e&a
 C A A C = 1e-a2e&a3e&a4e-a
 A C C A = 1e&a2e-a3e-a4e&a
 A C A C = 1e&a2e-a3e&a4e-a
 D C D C = 1-&a2e-a3-&a4e-a
 D C C D = 1-&a2e-a3e-a4-&a
 C D D C = 1e-a2-&a3-&a4e-a
 C D C D = 1e-a2-&a3e-a4-&a
 C C C C = 1e-a2e-a3e-a4e-a
 C C A F = 1e-a2e-a3e&a4e--
 C A C F = 1e-a2e&a3e-a4e--
 C A F C = 1e-a2e&a3e--4e-a
 F A C C = 1e--2e&a3e-a4e-a
 F A F A = 1e--2e&a3e--4e&a
 F A A F = 1e--2e&a3e&a4e--
 A F F A = 1e&a2e--3e--4e&a
 A F A F = 1e&a2e--3e&a4e--
 C E A E = 1e-a-e&a3e&a-e&a
 E A E C = -e&a2e&a-e&a4e-a

C E E A	=	$1e^{-a} - e^{\frac{a}{2}} - e^{\frac{a}{4}} + e^{\frac{a}{2}}$
A E E C	=	$1e^{\frac{a}{2}} - e^{\frac{a}{2}} - e^{\frac{a}{4}} + e^{-a}$
C E E A	=	$1e^{-a} - e^{\frac{a}{2}} - e^{\frac{a}{4}} + e^{\frac{a}{2}}$
A E E C	=	$1e^{\frac{a}{2}} - e^{\frac{a}{2}} - e^{\frac{a}{4}} + e^{-a}$
E C A E	=	$-e^{\frac{a}{2}} + 2e^{-a} + 3e^{\frac{a}{2}} - e^{\frac{a}{2}}$
E A C E	=	$-e^{\frac{a}{2}} + 2e^{\frac{a}{3}} + 3e^{-a} - e^{\frac{a}{2}}$
C E A Z	=	$1e^{-a} - e^{\frac{a}{3}} + e^{\frac{a}{2}} - e^{\frac{a}{2}}$
Z A E C	=	$-e^{\frac{a}{2}} + 2e^{\frac{a}{2}} - e^{\frac{a}{4}} + e^{-a}$
C Z A E	=	$1e^{-a} - e^{\frac{a}{2}} + 3e^{\frac{a}{2}} - e^{\frac{a}{2}}$
A E Z C	=	$1e^{\frac{a}{2}} - e^{\frac{a}{2}} - e^{\frac{a}{2}} + 4e^{-a}$
J L J L	=	$-e^{-a} + 2e^{-a} - e^{-a} + 4e^{-a}$
J L L J	=	$-e^{-a} + 2e^{-a} - 3e^{-a} - e^{-a}$
L J J L	=	$1e^{-a} - e^{-a} - e^{-a} + 4e^{-a}$
L J L J	=	$1e^{-a} - e^{-a} + 3e^{-a} - e^{-a}$