```
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.6367
Epoch [1/20], Train Loss: 1.4085, Train Accuracy: 28.08%, Validation Loss:
1.3401, Validation Accuracy: 34.72%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.6354
Epoch [2/20], Train Loss: 1.3824, Train Accuracy: 28.14%, Validation Loss:
1.3342, Validation Accuracy: 31.28%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.6623
Epoch [3/20], Train Loss: 1.3448, Train Accuracy: 31.04%, Validation Loss:
1.3329, Validation Accuracy: 33.53%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.6414
Epoch [4/20], Train Loss: 1.3656, Train Accuracy: 29.97%, Validation Loss:
1.3392, Validation Accuracy: 33.18%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.6911
Epoch [5/20], Train Loss: 1.3160, Train Accuracy: 34.36%, Validation Loss:
1.3147, Validation Accuracy: 37.44%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.7248
Epoch [6/20], Train Loss: 1.2466, Train Accuracy: 39.70%, Validation Loss:
1.2028, Validation Accuracy: 40.64%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.7372
Epoch [7/20], Train Loss: 1.2497, Train Accuracy: 39.52%, Validation Loss:
1.1645, Validation Accuracy: 48.58%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.7454
Epoch [8/20], Train Loss: 1.1918, Train Accuracy: 43.88%, Validation Loss:
1.1089, Validation Accuracy: 50.36%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.7404
Epoch [9/20], Train Loss: 1.1837, Train Accuracy: 45.72%, Validation Loss:
1.2158, Validation Accuracy: 44.79%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.7487
Epoch [10/20], Train Loss: 1.1721, Train Accuracy: 45.66%, Validation Loss:
1.1535, Validation Accuracy: 44.43%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.7866
Epoch [11/20], Train Loss: 1.1642, Train Accuracy: 46.46%, Validation Loss:
1.1164, Validation Accuracy: 51.07%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
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AUC: 0.7997
Epoch [12/20], Train Loss: 1.1296, Train Accuracy: 48.68%, Validation Loss: 1.0553, Validation Accuracy: 54.62%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8273
Epoch [13/20], Train Loss: 1.1196, Train Accuracy: 49.16%, Validation Loss: 1.0003, Validation Accuracy: 57.94%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8025
Epoch [14/20], Train Loss: 1.0883, Train Accuracy: 50.64%, Validation Loss: 1.0300, Validation Accuracy: 53.91%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8262
Epoch [15/20], Train Loss: 1.0965, Train Accuracy: 50.58%, Validation Loss: 0.9693, Validation Accuracy: 54.98%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8140
Epoch [16/20], Train Loss: 1.0588, Train Accuracy: 53.36%, Validation Loss: 1.0257, Validation Accuracy: 53.32%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8233
Epoch [17/20], Train Loss: 1.0822, Train Accuracy: 51.65%, Validation Loss: 1.0122, Validation Accuracy: 56.99%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8188
Epoch [18/20], Train Loss: 1.0688, Train Accuracy: 51.17%, Validation Loss: 1.0033, Validation Accuracy: 57.11%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8308
Epoch [19/20], Train Loss: 1.0278, Train Accuracy: 55.68%, Validation Loss: 0.9507, Validation Accuracy: 59.60%
Model output shape: torch.Size([13, 4])
Labels shape: torch.Size([13])
AUC: 0.8296
Epoch [20/20], Train Loss: 1.0536, Train Accuracy: 53.75%, Validation Loss: 0.9611, Validation Accuracy: 57.82%
Precision: 0.6299911692048794
Recall: 0.5781990521327014
F1 Score: 0.5699095975455333
Balanced Accuracy: 0.5751168296471468