

# Lecture-4 : Performance Evaluation

CSE 4237 : Soft Computing

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# Confusion Matrix

Actual/Prediction	Predicted Positive	Predicted Negative
Actual Positive(P)	True Positive(TP)	False Negative(FN)
Actual Negative(N)	False Positive(FP)	True Negative(TN)

# Evaluation Metrics

$$\textit{precision} = \frac{TP}{TP + FP}$$

$$\textit{recall} = \frac{TP}{TP + FN}$$

$$F1 = \frac{2 \times \textit{precision} \times \textit{recall}}{\textit{precision} + \textit{recall}}$$

$$\textit{accuracy} = \frac{TP + TN}{TP + FN + TN + FP}$$

$$\textit{specificity} = \frac{TN}{TN + FP}$$

For More: [https://en.wikipedia.org/wiki/Confusion\\_matrix](https://en.wikipedia.org/wiki/Confusion_matrix)

# Thank You!

Any Queries?