

## Some important prerequisites...

Prerequisite	Required for
Linear Algebra (W1)	Time-Frequency Analysis (W1)
	Intro Knot Theory (W2)
	Markov Chains to Support your Probabilistic Exploits (W2)
	Reflection Groups (W2)
	[Braid Group (W3)]
	Classifying Spaces (W3)
	Error-Correcting Codes (W3)
	Fundamental Theorem of Calculus in Dimension $n$ (W3)
	Lie Algebras (W3)
	Representation Theory (W3–4)
	Advanced Linear Algebra (W4)
	[Homotopy Theory (W4)]
	Many Facets of Optimization (W4)
	Introduction to Groups (W1)
Fundamental Group (W2)	
Galois Cohomology (W2)	
Reflection Groups (W2)	
The Banach–Tarski Paradox (W2)	
Braid Group (W3)	
Representation Theory (W3–4)	
Galois Theory (W4)	
Homotopy Theory (W4)	
Tiling Problems (W4)	
Multivariable Calculus (W1)	Functions of a Complex Variable (W2–3)
	Fundamental Theorem of Calculus in Dimension $n$ (W3)
	Shortest Distance (W4)
Point-set Topology (W1)	Fundamental Group (W2)
	Classifying Spaces (W3)
	Homotopy Theory (W4)
Ring Theory (W1)	Advanced Linear Algebra (W4)
Introduction to Complexity (W2)	P vs NP (W4)
Coloring Maps (W2)	Graphs on Surfaces (W3)
	Network and Combinatorial Optimization (W3)
	Unlikely Maths (W4)

Notes:

1. If subject A is listed as a prerequisite for course B, this indicates that the Mathcamp course on subject A is *sufficient* as a prerequisite for B. Often, the Mathcamp course on A covers a lot more than is necessary for B. Consult the teacher for B if you're not sure whether you need to take A.
2. The prerequisites listed for bracketed courses are optional. Talk to the teacher of the bracketed course to find out exactly what you need.

**(Also see other side!)**

## Have a class you want to take? Here are the prerequisites!

Class	Requires
Abel's Theorem (W1–5)	Introduction to Groups (W1)
Time-Frequency Analysis (W1)	Linear Algebra (W1)
Functions of a Complex Variable (W2–3)	Multivariable Calculus (W1)
Markov Chains to Support your Probabilistic Exploits (W2)	Linear Algebra (W1)
Fundamental Group (W2)	Introduction to Groups (W1)
	Point-set Topology (W1)
Galois Cohomology (W2)	Introduction to Groups (W1)
Intro Knot Theory (W2)	Linear Algebra (W1)
Reflection Groups (W2)	Linear Algebra (W1)
	Introduction to Groups (W1)
The Banach–Tarski Paradox (W2)	Introduction to Groups (W1)
Network and Combinatorial Optimization (W3)	Coloring Maps (W2)
Graphs on Surfaces (W3)	Coloring Maps (W2)
Lie Algebras (W3)	Linear Algebra (W1)
Braid Group (W3)	[Linear Algebra (W1)]
	Introduction to Groups (W1)
Classifying Spaces (W3)	Linear Algebra (W1)
	Point-set Topology (W1)
Error-Correcting Codes (W3)	Linear Algebra (W1)
Representation Theory (W3–4)	Linear Algebra (W1)
	Introduction to Groups (W1)
Fundamental Theorem of Calculus in Dimension $n$ (W3)	Linear Algebra (W1)
	Multivariable Calculus (W1)
Homotopy Theory (W4)	[Linear Algebra (W1)]
	Introduction to Groups (W1)
	Point-set Topology (W1)
Many Facets of Optimization (W4)	Linear Algebra (W1)
Shortest Distance (W4)	Multivariable Calculus (W1)
Tiling Problems (W4)	Introduction to Groups (W1)
P vs NP (W4)	Introduction to Complexity (W2)
Unlikely Maths (W4)	Coloring Maps (W2)
Galois Theory (W4)	Introduction to Groups (W1)
Advanced Linear Algebra (W4)	Linear Algebra (W1)
	Ring Theory (W1)

(Also see other side!)