

**Introducing Pure Mathematics by Robert Smedley and Garry Wiseman**

**MEI Syllabus Grid**

**Pure Mathematics 1 (2601) : AS**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Mathematical processes	1–7, 515–525	
Algebra	1–42, 93–96	
Co-ordinate geometry	131–153, 156–177, 220–225	
Trigonometry	45–72, 334–356	
Polynomials	117–129, 262–269	
Differentiation	156–185	
Integration	189–215, 484–486	

**Pure Mathematics 2 (2602) : A2**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Algebra	404–422, 463–466	
Sequences and series	230–258	
Functions	79–113, 173–178, 305–310, 334–340	
Differentiation	156–165, 173–185, 292–310, 416–426	
Integration	189–195, 416–426, 433–441	
Numerical methods	472–488	

**Pure Mathematics 3 (2603) : A2**

*FPM = Further Pure Mathematics*

*IM = introducing Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Algebra	262–290	
Trigonometry	358–378	
Co-ordinate geometry	319–327	
Calculus	313–331, 383–401, 433–466	
Vectors	131–153, 493–511	Also <i>FPM</i> pp. 106–112
Comprehension		<i>IM</i> pp. 1–7

**Pure Mathematics 4 (2604) : A2***FPM = Further Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Proof	515–525	Also <i>FPM</i> pp. 159–167
Curves		<i>FPM</i> pp. 130–145
Algebra		<i>FPM</i> pp. 140–145, 168–174
Complex numbers		<i>FPM</i> pp. 1–21
Vectors		<i>FPM</i> pp. 94–121
Matrices		<i>FPM</i> pp. 80–93, 299–314

**Pure Mathematics 5 (2605) : A2***FPM = Further Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Geometry		<i>FPM</i> pp. 43–56, 218–234
Complex numbers		<i>FPM</i> pp. 330–360
Calculus		<i>FPM</i> pp. 22–42, 177–181, 189–212
Algebra		<i>FPM</i> pp. 147–158

**Pure Mathematics 6 (2606) : A2***FPM = Further Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Vectors and matrices	148–149	Also <i>FPM</i> pp. 80–93, 112–114, 121–129, 314–329
Limiting processes	157–161	Also <i>FPM</i> pp. 182–184, 259–267
Multi-variable calculus		Not covered
Differential geometry		<i>FPM</i> pp. 250–259, 361–368
Abstract algebra		<i>FPM</i> pp. 369–404

**Further Pure Mathematics by Brian and Mark Gaulter**

**MEI Syllabus Grid**

**Pure Mathematics 1 (2601) : AS**

*IPM = Introducing Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Mathematical processes		<i>IPM</i> pp. 1–7, 515–525
Algebra		<i>IPM</i> pp. 1–42, 93–96
Co-ordinate geometry		<i>IPM</i> pp. 131–153, 156–177, 220–225
Trigonometry		<i>IPM</i> pp. 45–72, 334–356
Polynomials		<i>IPM</i> pp. 117–129, 262–269
Differentiation		<i>IPM</i> pp. 156–185
Integration		<i>IPM</i> pp. 189–215, 484–486

**Pure Mathematics 2 (2602) : A2**

*IPM = Introducing Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Algebra		<i>IPM</i> pp. 404–422, 463–466
Sequences and series		<i>IPM</i> pp. 230–258
Functions		<i>IPM</i> pp. 79–113, 173–178, 305–310, 334–340
Differentiation		<i>IPM</i> pp. 156–165, 173–185, 292–310, 416–426
Integration		<i>IPM</i> pp. 189–195, 416–426, 433–441
Numerical methods		<i>IPM</i> pp. 472–488

**Pure Mathematics 3 (2603) : A2**

*IPM = Introducing Pure Mathematics*

*IM = introducing Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Algebra		<i>IPM</i> pp. 262–290
Trigonometry		<i>IPM</i> pp. 358–378
Co-ordinate geometry		<i>IPM</i> pp. 319–327
Calculus		<i>IPM</i> pp. 313–331, 383–401, 433–466
Vectors	106–112	Also <i>IPM</i> pp. 131–153, 493–511
Comprehension		<i>IM</i> pp. 1–7

**Pure Mathematics 4 (2604) : A2***IPM = Introducing Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Proof	159–167	Also <i>IPM</i> pp. 515–525
Curves	130–145	
Algebra	140–145, 168–174	
Complex numbers	1–21	
Vectors	94–121	
Matrices	80–93, 299–314	

**Pure Mathematics 5 (2605) : A2**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Geometry	43–56, 218–234	
Complex numbers	330–360	
Calculus	22–42, 177–181, 189–212	
Algebra	147–158	

**Pure Mathematics 6 (2606) : A2***IPM = Introducing Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Vectors and matrices	80–93, 112–114, 121–129, 314–329	Also <i>IPM</i> pp. 148–149
Limiting processes	182–184, 259–267	Also <i>IPM</i> pp. 157–161
Multi-variable calculus		Not covered
Differential geometry	250–259, 361–368	
Abstract algebra	369–404	

**Introducing Mechanics by Brian Jefferson and Tony Beadsworth**

**MEI Syllabus Grid**

**Mechanics 1 (2607) : AS**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Modelling	1–7, 331	
Vectors	8–25	
Kinematics	31–49, 111–134	
Force	50–65	
Newton's laws of motion	75–96	
Projectiles	123–134	

**Mechanics 2 (2608) : A2**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Force	164–209, 245–250, 301–311	
Work, energy and power	250–274	
Momentum and Impulse	275–300	
Centre of mass	221–249	

**Mechanics 3 (2609) : A2**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Dimensional analysis	330–339	
Circular motion	340–369	
Hooke's law	370–391	
Simple harmonic motion	392–410	
Solid bodies and plane laminae	236–249	

**Differential equations (Mechanics 4) (2610) : A2**

*FM = Further Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Modelling with differential equations	420–423	Also <i>FM</i> pp. 35–43
First order differential equations	423–433	Also <i>FM</i> pp. 43–56
Second & higher order differential equations	433–440	Also <i>FM</i> pp. 56–70
Simultaneous differential equations		<i>FM</i> pp. 70–76
Numerical methods		<i>FM</i> pp. 76–80

**Mechanics 5 (2611) : A2***FM = Further Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Variable forces		<i>FM</i> pp. 88–96, 145–154
Relative motion	144–163	
Motion described in polar co-ordinates		<i>FM</i> pp. 155–175
Rotation of a rigid body		<i>FM</i> pp. 201–245

**Mechanics 6 (2612) : A2***FM = Further Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Rotation of a rigid body		<i>FM</i> pp. 201–245
Vectors		<i>FM</i> pp. 14–34, 246–255
Stability and oscillations		<i>FM</i> pp. 188–200, 255–260
Variable mass		<i>FM</i> pp. 81–87

**Further Mechanics by Brian Jefferson and Tony Beadsworth**

**MEI Syllabus Grid**

**Mechanics 1 (2607) : AS**

*IM = Introducing Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Modelling		<i>IM</i> pp. 1–7, 331
Vectors		<i>IM</i> pp. 8–25
Kinematics		<i>IM</i> pp. 31–49, 111–134
Force		<i>IM</i> pp. 50–65
Newton's laws of motion		<i>IM</i> pp. 75–96
Projectiles		<i>IM</i> pp. 123–134

**Mechanics 2 (2608) : A2**

*IM = Introducing Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Force		<i>IM</i> pp. 164–209, 245–250, 301–311
Work, energy and power		<i>IM</i> pp. 250–274
Momentum and Impulse		<i>IM</i> pp. 275–300
Centre of mass		<i>IM</i> pp. 221–249

**Mechanics 3 (2609) : A2**

*IM = Introducing Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Dimensional analysis		<i>IM</i> pp. 330–339
Circular motion		<i>IM</i> pp. 340–369
Hooke's law		<i>IM</i> pp. 370–391
Simple harmonic motion		<i>IM</i> pp. 392–410
Solid bodies and plane laminae		<i>IM</i> pp. 236–249

**Differential equations (Mechanics 4) (2610) : A2**

*IM = Introducing Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Modelling with differential equations	35–43	Also <i>IM</i> pp. 420–423
First order differential equations	43–56	Also <i>IM</i> pp. 423–433
Second & higher order differential equations	56–70	Also <i>IM</i> pp. 433–440
Simultaneous differential equations	70–76	
Numerical methods	76–80	

**Mechanics 5 (2611) : A2***IM = Introducing Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Variable forces	88–96, 145–154	
Relative motion		<i>IM</i> pp. 144–163
Motion described in polar co-ordinates	155–175	
Rotation of a rigid body	201–245	

**Mechanics 6 (2612) : A2***FM = Further Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
Rotation of a rigid body	201–245	
Vectors	14–34, 246–255	
Stability and oscillations	188–200, 255–260	
Variable mass	81–87	