

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

**Edexcel Syllabus Grid**

**Unit P1 – Pure Mathematics**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Proof	24–28, 242–243, 248, 515–519	
2 Algebra	1–44, 117–130, 404–409	
3 Trigonometry	45–48, 68–72, 334–354	
4 Coordinate geometry in the $(x, y)$ plane	131–147	
5 Sequences and series	230–261	
6 Differentiation	156–188	
7 Integration	189–202	

**Unit P2 – Pure Mathematics**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Algebra and functions	120–129	
2 Functions	12, 37–42, 79–116	
3 Sequences and series	230–231, 262–269	
4 Trigonometry	334–382	
5 Exponentials and logarithms	410–422	
6 Differentiation	416–432	
7 Integration	209–219, 416–432	
8 Numerical methods	472–478, 484–489	

**Unit P3 – Pure Mathematics**

*FPM = Further Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Algebra	122–125, 276–291	
2 Coordinate geometry in the $(x, y)$ plane	220–225, 305–309, 319–320	Also <i>FPM</i> pp. 130–132
3 Series	262–275	
4 Differentiation	292–333, 383–403	
5 Integration	383–403, 433–471	
6 Vectors	493–514	

**Unit P4 – Pure Mathematics***FPM = Further Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Inequalities	6–9, 36–37	
2 Series	242–247	Also <i>FPM</i> pp. 168–174
3 Complex numbers		<i>FPM</i> pp. 1–21, 154–158
4 Numerical solution of equations	472–483	
5 First Order Differential Equations	457–460	Also <i>FPM</i> pp. 57–61, 75–79
6 Second Order Differential Equations		<i>FPM</i> pp. 61–79
7 Polar Coordinates		<i>FPM</i> pp. 43–56

**Unit P5 – Pure Mathematics***FPM = Further Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Coordinate Systems		<i>FPM</i> pp. 218–234, 361–368
2 Hyperbolic functions		<i>FPM</i> pp. 189–201
3 Differentiation		<i>FPM</i> pp. 192–210
4 Integration		<i>FPM</i> pp. 192–210, 241–259

**Unit P6 – Pure Mathematics***FPM = Further Pure Mathematics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Complex Numbers		<i>FPM</i> pp. 12–21, 330–344, 355–360
2 Matrix Algebra		<i>FPM</i> pp. 80–93, 299–329
3 Vectors		<i>FPM</i> pp. 94–121
4 Maclaurin and Taylor series		<i>FPM</i> pp. 177–188, 292–298
5 Numerical Methods		<i>FPM</i> pp. 286–292
6 Proof		<i>FPM</i> pp. 159–164, 330–331

## Further Pure Mathematics by Brian and Mark Gaulter

### Edexcel Syllabus Grid

#### Unit P1 – Pure Mathematics

*IPM = Introducing Pure Mathematics*

Topic	Pages	Notes
1 Proof		<i>IPM</i> pp. 24–28, 242–243, 248, 515–519
2 Algebra		<i>IPM</i> pp. 1–44, 117–130, 404–409
3 Trigonometry		<i>IPM</i> pp. 45–48, 68–72, 334–354
4 Coordinate geometry in the $(x, y)$ plane		<i>IPM</i> pp. 131–147
5 Sequences and series		<i>IPM</i> pp. 230–261
6 Differentiation		<i>IPM</i> pp. 156–188
7 Integration		<i>IPM</i> pp. 189–202

#### Unit P2 – Pure Mathematics

*IPM = Introducing Pure Mathematics*

Topic	Pages	Notes
1 Algebra and functions		<i>IPM</i> pp. 120–129
2 Functions		<i>IPM</i> pp. 12, 37–42, 79–116
3 Sequences and series		<i>IPM</i> pp. 230–231, 262–269
4 Trigonometry		<i>IPM</i> pp. 334–382
5 Exponentials and logarithms		<i>IPM</i> pp. 410–422
6 Differentiation		<i>IPM</i> pp. 416–432
7 Integration		<i>IPM</i> pp. 209–219, 416–432
8 Numerical methods		<i>IPM</i> pp. 472–478, 484–489

#### Unit P3 – Pure Mathematics

*IPM = Introducing Pure Mathematics*

Topic	Pages	Notes
1 Algebra		<i>IPM</i> pp. 122–125, 276–291
2 Coordinate geometry in the $(x, y)$ plane	130–132	Also <i>IPM</i> pp. 220–225, 305–309, 319–320
3 Series		<i>IPM</i> pp. 262–275
4 Differentiation		<i>IPM</i> pp. 292–333, 383–403
5 Integration		<i>IPM</i> pp. 383–403, 433–471
6 Vectors		<i>IPM</i> pp. 493–514

### Unit P4 – Pure Mathematics

*IPM = Introducing Pure Mathematics*

Topic	Pages	Notes
1 Inequalities		<i>IPM</i> pp. 6–9, 36–37
2 Series	168–174	Also <i>IPM</i> pp. 242–247
3 Complex numbers	1–21, 154–158	
4 Numerical solution of equations		Also <i>IPM</i> pp. 472–483
5 First Order Differential Equations	57–61, 75–79	Also <i>IPM</i> pp. 457–460
6 Second Order Differential Equations	61–79	
7 Polar Coordinates	43–56	

### Unit P5 – Pure Mathematics

Topic	Pages	Notes
1 Coordinate Systems	218–234, 361–368	
2 Hyperbolic functions	189–201	
3 Differentiation	192–210	
4 Integration	192–210, 241–259	

### Unit P6 – Pure Mathematics

Topic	Pages	Notes
1 Complex Numbers	12–21, 330–344, 355–360	
2 Matrix Algebra	80–93, 299–329	
3 Vectors	94–121	
4 Maclaurin and Taylor series	177–188, 292–298	
5 Numerical Methods	286–292	
6 Proof	159–164, 330–331	

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

### **Edexcel Syllabus Grid**

#### **Unit M1 – Mechanics**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Mathematical Models in Mechanics	1–7	
2 Vectors in Mechanics	8–20, 57–65, 121–122	
3 Kinematics of a particle moving in a straight line	31–49, 121–122	
4 Dynamics of a particle moving in a straight line or plane	50–65, 75–96, 164–169, 275–288	
5 Statics of a particle	57–65, 164–175	
6 Moments	183–211	

#### **Unit M2 – Mechanics**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Kinematics of a particle moving in a straight line or plane	41–49, 97–116, 123–134	
2 Centres of mass	221–236	
3 Work and energy	250–274	
4 Collisions	275–295	
5 Statics of rigid bodies	183–209	

#### **Unit M3 – Mechanics**

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Further kinematics	97–106	
2 Elastic strings and springs	370–391	
3 Further dynamics	106–110, 392–403	
4 Motion in a circle	340–369	
5 Statics of rigid bodies	236–249	

#### **Unit M4 – Mechanics**

*FM = Further Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Relative motion	144–163	
2 Elastic collisions in two dimensions	295–300	
3 Further motion of particles in one dimension	271–272, 411–419	Also <i>FM</i> pp. 88–96, 115–136
4 Stability		<i>FM</i> pp. 188–200

**Unit M5 – Mechanics***FM = Further Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Application of vectors in mechanics	254	Also <i>FM</i> pp. 27–70
2 Variable mass		<i>FM</i> pp. 81–87
3 Moments of inertia of a rigid body		<i>FM</i> pp. 201–223
4 Rotation of a rigid body about a fixed smooth axis	405–408	Also <i>FM</i> pp. 224–245

**Unit M6 – Mechanics***FM = Further Mechanics*

<b>Topic</b>	<b>Pages</b>	<b>Notes</b>
1 Kinematics of a particle moving in two dimensions		<i>FM</i> pp. 155–181
2 Dynamics of a particle moving in two dimensions		<i>FM</i> pp.137–154, 165-181
3 General motion of a rigid body		<i>FM</i> pp. 246–260

## Further Mechanics by Brian Jefferson and Tony Beadsworth

### Edexcel Syllabus Grid

#### Unit M1 – Mechanics

*IM = Introducing Mechanics*

Topic	Pages	Notes
1 Mathematical Models in Mechanics		<i>IM</i> pp. 1–7
2 Vectors in Mechanics		<i>IM</i> pp. 8–20, 57–65, 121–122
3 Kinematics of a particle moving in a straight line		<i>IM</i> pp. 31–49, 121–122
4 Dynamics of a particle moving in a straight line or plane		<i>IM</i> pp. 50–65, 75–96, 164–169, 275–288
5 Statics of a particle		<i>IM</i> pp. 57–65, 164–175
6 Moments		<i>IM</i> pp. 183–211

#### Unit M2 – Mechanics

*IM = Introducing Mechanics*

Topic	Pages	Notes
1 Kinematics of a particle moving in a straight line or plane		<i>IM</i> pp. 41–49, 97–116, 123–134
2 Centres of mass		<i>IM</i> pp. 221–236
3 Work and energy		<i>IM</i> pp. 250–274
4 Collisions		<i>IM</i> pp. 275–295
5 Statics of rigid bodies		<i>IM</i> pp. 183–209

#### Unit M3 – Mechanics

*IM = Introducing Mechanics*

Topic	Pages	Notes
1 Further kinematics		<i>IM</i> pp. 97–106
2 Elastic strings and springs		<i>IM</i> pp. 370–391
3 Further dynamics		<i>IM</i> pp. 106–110, 392–403
4 Motion in a circle		<i>IM</i> pp. 340–369
5 Statics of rigid bodies		<i>IM</i> pp. 236–249

#### Unit M4 – Mechanics

*IM = Introducing Mechanics*

Topic	Pages	Notes
1 Relative motion		<i>IM</i> pp. 144–163
2 Elastic collisions in two dimensions		<i>IM</i> pp. 295–300
3 Further motion of particles in one dimension	88–96, 115–136	Also <i>IM</i> pp. 271–272, 411–419
4 Stability	188–200	

### Unit M5 – Mechanics

*IM = Introducing Mechanics*

Topic	Pages	Notes
1 Application of vectors in mechanics	27–70	Also <i>IM</i> pp. 254
2 Variable mass	81–87	
3 Moments of inertia of a rigid body	201–223	
4 Rotation of a rigid body about a fixed smooth axis	224–245	Also <i>IM</i> pp. 405–408

### Unit M6 – Mechanics

Topic	Pages	Notes
1 Kinematics of a particle moving in two dimensions	155–181	
2 Dynamics of a particle moving in two dimensions	137–154, 165–181	
3 General motion of a rigid body	246–260	