



## STUDENT RESOURCES – TEXTBOOKS AND SOFTWARE

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### A note about distance education requirements

The BCA program is delivered by distance means. **Access to a computer and the internet are essential study requirements.**

An **online learning management system, eLearning**, is used for a variety of functions, the most important of which is as a communication tool, for student/student and student coordinator discussion. Email is also used, particularly as the first point of contact from BCA administrators and unit coordinators. **Hard copy materials** are sent by post and can also be accessed via eLearning. Some units prescribe compulsory **textbooks**.

At least one of the **Software packages** Stata, SAS, and Microsoft Access and Excel are requirements for most units (Stata is used in a number of units and Stata and SAS are compulsory in the unit Data Management and Statistical Computing [DMC]. See page 7 for a full listing).

**Please note that it's important to buy study resources as soon as possible. As most students will be buying textbooks and software remotely from suppliers or home universities, there are likely to be delays while licenses are arranged (for some software) and materials are posted or, in some cases, shipped. When buying books online you should check whether publishers / retailer ship to Australia.**

The **BCA Program Outline** contains further details about unit of study content, pre/co-requisites, study requirements and delivery centres. See [www.bca.edu.au/currentstudents.html#BCAprogramoutline](http://www.bca.edu.au/currentstudents.html#BCAprogramoutline)

BCA – TEXTBOOKS, semester 1 - book (& CD) list per unit of study (See page 4 for notes on texts. These will help to identify the correct versions of some texts.)									
UNIT OF STUDY DETAILS			TEXT BOOK DETAILS						
UNIT	Unit Coordinator/s	Sem	Title	Version	Compulsory/ recommended	Author/s	Publisher	Year	ISBN
Epidemiology (EPI)	UQ (distance) or local (distance or on-campus)	1 & 2			No compulsory text book. See note: 1, p4				
Mathematical Background for Biostatistics (MBB)	Gary Glonek (University of Adelaide)	1 & 2	Calculus Early Transcendentals Combined	9 <sup>th</sup> edition See note 2, p 4	compulsory	Anton H, Bivens I, Davis S	Wiley See note 2, p 4 for Student Companion Site)	2009	978-0-470-18345-8
			Matrices for Statistics	2 <sup>nd</sup> edition	recommended	Healy, M.J.R.	Oxford University Press	2000	978-0-19-850702-4
Data Management & Statistical Computing (DMC)	Cate D'Este (Newcastle)	1 & 2	<b>SAS:</b> Applied Statistics & the SAS Programming Language	5 <sup>th</sup> edition See note 3.i, p 4	compulsory if you have not used SAS previously	Cody R, Smith J	Prentice Hall	2006	978-0-13-146532-9
			<b>Stata:</b> A short Introduction to Stata for Biostatistics	2009 See note 3.ii, p 4	compulsory if you have not used Stata previously	Hills M & De Stavola B	Buy from: <a href="http://www.survey-design.com.au/bookshop.html">www.survey-design.com.au/bookshop.html</a> or <a href="http://www.stata.com/bookstore/bios.html">www.stata.com/bookstore/bios.html</a>		
Probability & Distribution Theory (PDT)	Andrew Forbes /Rory Wolfe (Monash)	1 & 2	Mathematical Statistics with Applications	7 <sup>th</sup> edition	compulsory	Wackerly DD, Mendenhall W, Scheaffer RL	Wadsworth Publishing (ex Duxbury Press, USA)	2007	978-0-495-11081-1
Health Indicators & Health Surveys (HIS)	Judy Simpson (USyd, SPH)	1	Elementary Survey Sampling	6 <sup>th</sup> edition	compulsory	Scheaffer RL, Mendenhall W, Ott RL	Wadsworth	2006	978-0-534-41805-2
Survival Analysis (SVA)	Ken Beath (Macquarie)	1	Applied Survival Analysis	2 <sup>nd</sup> edition	compulsory	Hosmer D.W., Lemeshow S., May S.	Wiley Interscience	2008	978-0-471-75499-2
			An Introduction to Survival Analysis Using Stata	2 <sup>nd</sup> edition	recommended	Cleves M, Gould W, Gutierrez R, Marchenko Y	Stata Press - <a href="http://survey-design.com.au/bookshopnz.html">http://survey-design.com.au/bookshopnz.html</a>	2008	978-1-59718-041-2
Principles of Statistical Inference (PSI)	Rachel O'Connell , Liz Barnes(USyd, NHMRC CTC)	1 & 2			No compulsory text book. See note: 1, p4				
Clinical Biostatistics (CLB)	Mark Jones (UQ)	1			No compulsory text book. See note: 1, p4				
Longitudinal & Correlated Data (LCD)	Andrew Forbes (Monash) / John Carlin (UMelb)	1	Applied Longitudinal Analysis		recommended	Fitzmaurice G, Laird N, Ware J	John Wiley and Sons	2004	978-0-471-21487-8

BCA - TEXTBOOKS – semester 2 - book list per unit of study (See page 4 for notes on texts. These will help to identify the correct versions of some texts.)									
UNIT OF STUDY DETAILS			TEXT BOOK DETAILS						
UNIT	Unit Coordinator/s	Sem	Title	Version	Compulsory/ recommended	Author/s	Publisher	Year	ISBN
Epidemiology (EPI)	UQ (distance)	1 & 2			No compulsory text book. See note: 1, p4				
Mathematical Background for Biostatistics (MBB)	Maurizio Manuguerra (Macquarie)	1 & 2	Calculus Early Transcendentals Combined	9 <sup>th</sup> edition See note 2, p 4	compulsory	Anton H, Bivens I, Davis S	Wiley See note 2, p 4 for Student Companion Site)	2009	978-0-470-18345-8
			Matrices for Statistics	2 <sup>nd</sup> edition	recommended	Healy, M.J.R.	Oxford University Press	2000	978-0198507024
Data Management & Statistical Computing (DMC)	Lyle Gurrin, Kris Jansen (UMelb)	1 & 2	SAS: Applied Statistics & the SAS Programming Language	5 <sup>th</sup> edition See note 3.i, p 4	compulsory if you have not used SAS previously	Cody R, Smith J	Prentice Hall	2006	978-0-13-146532-9
			Stata: A short Introduction to Stata for Biostatistics	2009 See note 3.ii, p 4	compulsory if you have not used Stata previously	Hills M & De Stavola B	Buy from: <a href="http://www.survey-design.com.au/bookshop.html">www.survey-design.com.au/bookshop.html</a> or <a href="http://www.stata.com/bookstore/bios.html">www.stata.com/bookstore/bios.html</a>		
Probability & Distribution Theory (PDT)	Andrew Forbes /Rory Wolfe (Monash)	1 & 2	Mathematical Statistics with Applications	7 <sup>th</sup> edition	compulsory	Wackerly DD, Mendenhall W, Scheaffer RL	Duxbury Press, USA.	2007	978-0-495-11081-1
Principles of Statistical Inference (PSI)	Patrick Kelly (USyd, SPH)	1 & 2			No compulsory text book. See note: 1, p4				
Design of Randomised Controlled Trials (DES)	Philip Ryan (Adelaide)	2	Clinical Trials A Methodologic Perspective	2 <sup>nd</sup> edition See note 6, p 4	compulsory	Piantadosi S	John Wiley & Sons	2005	978-0-471-72781-1
Categorical Data & GLMs (CDA)	Michael Coory (UQ)	2			No compulsory text book. See note: 1, p4				
Linear Models (LMR)	John Carlin (UMelb) / Andrew Forbes (Monash)	2	Applied Linear Statistical Models	5 <sup>th</sup> edition See note 5, p 4	recommended	Kutner MH, Nachtsheim CJ, Neter J, Li W	McGraw-Hill/Irwin	2005	978-0073108742
Advanced Clinical Trials (ACT)	Diana Zannino, Val GebSKI (USyd, NHMRC CTC)	2	Group Sequential Methods with Applications to Clinical Trials		recommended	Jennison C, Turnbull BW	Chapman & Hall/CRC	1999	978-0849303166
*Bayesian Statistical Methods (BAY)	Lyle Gurrin (UMelb)	2	Bayesian Data Analysis	2 <sup>nd</sup> edition See note 4, p 4	compulsory	Gelman A, Carlin JB, Stern HS, Rubin DB	Chapman and Hall	2003	978-1-58488-388-3
Bioinformatics (BIF)	Graham Wood (Macquarie)	2	Biological Sequence Analysis: Probabilistic models of proteins and nucleic acids		Compulsory Will order in at Macquarie Coop	Durbin R, Eddy S, Krogh A, Mitchison G	Cambridge University Press	1998	978-0521629713

## TEXTBOOKS

## Notes to the tables on pages 2 and 3

1. “Not compulsory” textbook listings: recommended references are listed in the current Program Outline and/or unit Study Guides.

### SEMESTERS 1 & 2

#### 2. MBB textbooks:

**Calculus Early Transcendentals Combined, 9th Edition**, Anton et al. (Be sure to cite the ISBN number, see pp 3 and 4. There are also a Single Variable, Multivariable, and Late Transcendentals versions which are NOT the correct versions.) See: <http://he-cda.wiley.com/WileyCDA/HigherEdTitle/productCd-0470183454.html> You can find a Student Companion Site at: <http://bcs.wiley.com/he-bcs/Books?action=index&itemId=0470183454&bcsId=4767>

Australian distributor: [www.wiley.com/legacy/products/worldwide/jacaranda](http://www.wiley.com/legacy/products/worldwide/jacaranda)

3. **DMC textbooks and software:** If you have not used SAS or Stata previously, it is recommended that you have access to the text for the relevant software.

**3.i SAS textbook and software compatibility:** The latest (2006) version of the textbook, *Applied Statistics & the SAS Programming Language*, refers to SAS 9. Data Management and Statistical Computing (DMC) has a minimum software requirement of SAS version 8.2. There is also a 4<sup>th</sup> edition widely available, ISBN 978-0137436422. This book is OK for use in DMC.

**3.ii Stata purchases, text book and software:** You will need to buy direct from Survey Design and Analysis Pty Ltd, at: <http://survey-design.com.au> or, if not available on this site, see: [www.stata.com/bookstore/bios.html](http://www.stata.com/bookstore/bios.html)

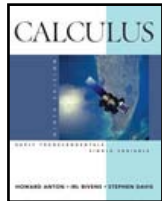
### SEMESTER 2

4. **BAY textbook - Bayesian Data Analysis:** The correct version is the 2nd edition. The first edition, dated 1995, is NOT the correct version.
5. **LMR textbook:** There are quite a number of paperback and hardcover versions of this book. Websites don't necessarily clarify whether you can buy the book alone or whether it's always sold as the package with a CD. If a choice is available, each has its own ISBN. The 4<sup>th</sup> and 5<sup>th</sup> editions are available from many suppliers. The LMR study notes refer to the 5th edition but a translation back to the 4<sup>th</sup> edition is provided. (The ISBN for the 4<sup>th</sup> edition is: 978-0071145671 or, for a hardcopy: 978-0256117363.)
6. **DES textbook - Clinical Trials A Methodologic Perspective:** This book is required for the unit. However, not all chapters are referred to. It is recommended that, in the first instance, you seek access to the book through your local or university library, or workplace.

## BUYING TEXTBOOKS

### Compulsory texts

#### MBB



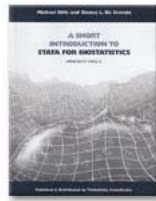
recommended

#### DMC:

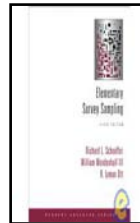
SAS



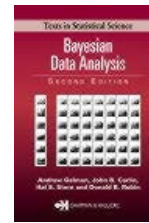
Stata



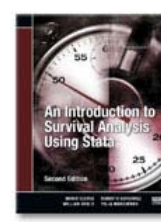
#### HIS



#### BAY

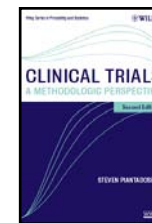


#### SVA

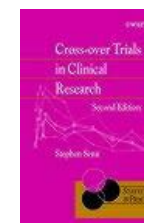


recommended

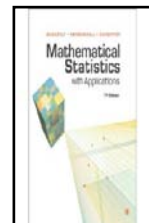
#### DES



#### ACT



#### PDT



**CO-OP BOOKSHOP:** If you are unable to buy compulsory books locally, you can order them (except the Stata book) through the Co-op Bookshop website. Copies of all **compulsory** textbooks are ordered for the current semester.

**Contact details:** Eric von Verstak (Text Buyer) Ph: 02-9351 2807 Email: [evonverstak@coop-bookshop.com.au](mailto:evonverstak@coop-bookshop.com.au)

**Order online at:** [www.coop-bookshop.com.au/bookshop](http://www.coop-bookshop.com.au/bookshop) (Enter the relevant ISBN in the Search bar in the top right hand corner.)

A **10% discount** is available to **Coop members** – join via the website.

**OTHER SUPPLIERS:** If you are unable to find the book locally or via the Co-op Bookshop, suppliers can be found online by doing a search on the ISBN no. Some suggested sources are listed below.

**Amazon** is a reliable source: [www.amazon.com](http://www.amazon.com)

If you are willing to pay \$35 USD you can get books couriered in about 3-4 days. (Try their second-hand link.)

**DA Information Services in Melbourne:** [www.dadirect.com.au](http://www.dadirect.com.au) Books have not been ordered by the BCA from these suppliers (but may have been by Melbourne Universities); you can check whether the book you want is locally available.

**2<sup>nd</sup> hand books:** [www.abebooks.com](http://www.abebooks.com) This site has a good international cooperative textbook exchange. It's worth a try.

**Compare prices:** [www.addall.com](http://www.addall.com) Here you can search for books and compare prices across vendors.

**SEARCHING FOR BOOKS ONLINE:** Using the ISBN number to do a search is generally the quickest route, and where multiple editions exist, also the safest. ISBN numbers are listed in the far right-hand column of the tables on pages 2 and 3 of this Guide. **Tip:** If possible, order from suppliers that have an outlet in your home country as this will reduce postage times.

**EBOOK VERSIONS** of some textbooks are available. Even if you'd prefer to have a 'real-life' book, the (possibly) cheaper and more immediately available version may be useful to fill the gap while you are waiting for the hard copy book to arrive in the mail, Note that free 'trial' copies available from some suppliers may only contain extracts of the contents.

#### STATA

Text book: please buy direct from Survey Design and Analysis Pty Ltd, at: <http://survey-design.com.au> or, if not available on this site, see: [www.stata.com/bookstore/bios.html](http://www.stata.com/bookstore/bios.html)

...and of course, for all books, you can always see whether you can pick up a bargain on ebay

## SOFTWARE - list per unit of study

Most units of study require the use of SAS\* or Stata statistical software packages. You will need to choose one or the other. If doing DMC and/or LCD, you will need both. If you don't have the required software on your home computer, you will need to be able to access it somewhere for at least a few hours throughout the semester.

Both packages are used at various points throughout the BCA program, although Stata is easier to get started with and is used in more of the units than SAS.

Unit	Software	Notes
Epidemiology (EPI)	none	
Mathematical Background for Biostatistics (MBB)	Excel or Stata	
Probability & Distribution Theory (PDT)	Stata	
Health Indicators & Health Surveys (HIS)	SAS or Stata, Excel	
Data Management & Statistical Computing (DMC)	SAS* and Stata	<b>DMC students please note:</b> you will need <b>SAS and Stata</b> . Introductory modules on these packages are a compulsory element of the unit. See below for purchasing information.
Principles of Statistical Inference (PSI)	SAS or Stata	
Clinical Biostatistics (CLB)	Stata	
Design of Randomised Controlled Trials (DES)	none	
Linear Models (LMR)	Stata	
Categorical Data & GLMs (CDA)	Stata	
Survival Analysis (SVA)	Stata	
Bioinformatics (BIF)	Freeware will be downloaded	
Longitudinal & Correlated Data (LCD)*	SAS and Stata	
Bayesian Statistical Methods (BAY)	WinBUGS 1.4.3 (at <a href="http://www.mrc-bsu.cam.ac.uk/bugs/welcome.shtml">www.mrc-bsu.cam.ac.uk/bugs/welcome.shtml</a> ) and Excel or Stata	

\* **OPERATING SYSTEMS:** Macintosh systems are not recommended. Some of the listed packages do not support the Macintosh operating system. SAS is not compatible with the Mac OS.

**SUPPORT FOR SOFTWARE:** Unit coordinators may specify that students need to use either Stata or SAS or both for some or all of the unit. Software requirements are outlined in the unit description (as published in the BCA Program Outline and university handbooks). Further details may be provided in unit Study Guides. If both packages are required, information will be given on the extent to which help will be provided for each in the modules or sections in which they may be used. Generally one package will be recommended and supported while students may use another one if they choose, but are responsible for finding their own support for any difficulties they may encounter.

## OBTAINING SOFTWARE (see note about operating systems on the previous page)

**SAS and Stata details listed are for education packages. These are considerably cheaper than the standard retails license fees. If buying software directly from suppliers, students should state that they are studying BCA courses.**

### STATA

#### Access to Stata

You will need to buy the software directly from the distributors at: [www.survey-design.com.au](http://www.survey-design.com.au) *Guidelines for buying Stata can be found on page 8.*

### SAS

#### Access to SAS

Some consortium universities have site licenses and are able to provide SAS directly . We recommend that you check first with the university in which you are enrolled, as SAS may be provided for a reduced fee - see contact details below.

Students enrolled at the Universities of Adelaide, Newcastle or Monash University should buy SAS directly from the suppliers.

**Note: License files for SAS must be updated annually.** *Guidelines for buying SAS from the supplier can be found on page 9.*

#### Contact at Macquarie University:

A/Prof Gillian Heller  
02-9850-8541  
[gheller@efs.mq.edu.au](mailto:gheller@efs.mq.edu.au)

#### Contact at the University of Queensland:

Prof Annette Dobson  
07-3365 5346  
[a.dobson@sph.uq.edu.au](mailto:a.dobson@sph.uq.edu.au)

#### Contact at the University of Melbourne: (see also SAS overview site: <http://cms.unimelb.edu.au/its/services/software/catalogue/statistical-mathematical> )

Liz Lagias	Prof John Carlin
03-8344 9339	03 - 9345 6363, 03-8344 0733 (Tuesday)
<a href="mailto:elagias@unimelb.edu.au">elagias@unimelb.edu.au</a>	<a href="mailto:john.carlin@mcri.edu.au">john.carlin@mcri.edu.au</a>

#### Contact at the University of Sydney:

Erin Passmore  
02-9351 4384, Fax: 02-9351 5049  
[epassmore@health.usyd.edu.au](mailto:epassmore@health.usyd.edu.au)

**At USyd**, if you want a SAS licence for your home computer or you want to renew your previous student licence, please contact Erin Passmore, Associate Lecturer, Room 305, Edward Ford Building (see left for contact details). The software is free if you are enrolled in a BCA program at the University of Sydney, for the period of your enrolment, although you will have to obtain a new licence file each January to update the SAS system. **Please note, if you are running Windows XP Home or lower, you will need to upgrade your operating system to Windows XP Professional or above so that you can run SAS v9.2.** SAS also might not install on Vista Home Basic or Home Premium. Vista Ultimate may be required. Some students have successfully installed SAS on Vista Home, but it is unclear why it works for some students and not others. Alternatively, 24-hour access to the Computing Lab in the Edward Ford building is available by an access card. To apply for this access, you need to complete a form, available from our Student Office, Room 329, Edward Ford Building.

### Microsoft Excel

Excel is available in the Microsoft (MS) Office Package.

**If you need further assistance, please contact the BCA coordinating office: (02) 9562 5324 / 5076; [bca@ctc.usyd.edu.au](mailto:bca@ctc.usyd.edu.au)**

## BUYING STATA FOR BCA UNITS OF STUDY

You will need to buy Stata directly from the suppliers. You can place your order via the Survey Design website at: [www.survey-design.com.au](http://www.survey-design.com.au)

### Prices

- ✓ Advanced GradPlan Stata/IC **Stata 11** with *perpetual licence* (consisting of CD for Windows, Mac or Linux) = AU\$242 (+ postage)
- ✓ Basic GradPlan Stata/IC **Stata 11** - as above but with a *one year licence* = AU\$149 (+ postage)
- ✗ There is also a Small Stata option; however, this is limited to around 1,000 observations which may not be sufficient for BCA units. It is NOT recommended.

### Please note:

- All 8,500 pages of documentation (in PDF format) come with each Stata purchase. This includes the Getting Started Manual.
- The listed prices were last updated in December 2009. The information should be up to date for 2010 but the BCA can't guarantee this, so when purchasing, please check the **GradPlan** prices on the Survey Design website.

### Arrangements

Go to [www.survey-design.com.au/gradplan.html](http://www.survey-design.com.au/gradplan.html) and download a copy of the Order Form (LH column 'Order form' link). You should order a **GRADPLAN STATA/IC** package.

The BCA courses are authorised for GradPlan, so you do not have to supply permission from the course lecturer. On the order form you should note that you are enrolled in a BCA course, your student ID number, the university in which you are enrolled, and the operating system of the computer that you'll be using.

## BUYING SAS FOR BCA UNITS OF

### Minimum requirement

SAS version 9.1.3 (latest version = 9.2)

**Please note:** if you are running Windows XP Home or lower, you will need to upgrade your operating system to Windows XP Professional or above so that you can run SAS versions 9.

### Obtaining SAS from your 'home' university:

You may be able to obtain the SAS disks from your home university free of charge, *see page 7 for details*. You must install version 9.1.3 or 9.2 and the University may also charge a fee for the disks.

### Purchasing SAS from the supplier:

If you are unable to obtain SAS at your home university, you can purchase it directly from James Enoch at SAS Australia and New Zealand.

**Cost:** \$99 for installation disks if obtained from SAS.

Fax the **Purchase Order form** and **Home Use Agreement form** (found at the webpage below) to James Enoch to order your disks.

**Please note** that the disks are shipped from the US and may take up to 10 working days for you to receive them, possibly longer if you are studying from overseas, depending on your location.

**Forms found at:** [www.bca.edu.au/currentstudents.html#textbookguide](http://www.bca.edu.au/currentstudents.html#textbookguide)

**Fax forms to:** James Enoch, Academic Programs Manager, SAS

Fax: 02-9428 4759

Ph: 02-9428 0435

email: [academic@oz.sas.com](mailto:academic@oz.sas.com)

You will be receiving access to the full version of SAS through the Home Use Agreement. (This is not the learning edition; see: <http://support.sas.com/learn/le> )

- You may only use the software for the purpose of completing BCA coursework.
- You may not use the software for any commercial use.

**Please note** that **SID** (SAS Installation Data) files must be updated **annually**; an email must be sent to [academic@oz.sas.com](mailto:academic@oz.sas.com) to request the latest SID file. (The supplier may call the files SIDs. This stands for SAS Installation Data, not student ID.)

**Standard SAS software licence renewal process:** from 1st January 2010, the Product Authorisation Code notice period will cease 30 days after the licence renewal date.

### Products:

<ul style="list-style-type: none"> <li>▪ AppDev Studio</li> <li>▪ Base SAS</li> <li>▪ Enterprise Guide</li> <li>▪ SAS/ACCESS ODBC</li> <li>▪ SAS/ACCESS PC Files</li> </ul>	<ul style="list-style-type: none"> <li>▪ SAS/ACCESS to OLE DB</li> <li>▪ SAS/CONNECT</li> <li>▪ SAS/ETS</li> <li>▪ SAS/FSP</li> <li>▪ SAS/GRAPH</li> </ul>	<ul style="list-style-type: none"> <li>▪ SAS/IML</li> <li>▪ SAS/INSIGHT</li> <li>▪ SAS/QC</li> <li>▪ SAS/SHARE</li> <li>▪ SAS/STAT</li> </ul>
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### Free Online Tutorials

<http://support.sas.com/training/elearn/tutorials>

### Further information

[www.sas.com/australia/academic](http://www.sas.com/australia/academic)

[www.sas.com](http://www.sas.com)

### Academic Club

[www.sas.com/offices/asiapacific/sp/academic/club.html](http://www.sas.com/offices/asiapacific/sp/academic/club.html)

The SAS Academic Club has been established for Academics, Students, University staff and other interested parties.