

C747 – Course 9 “Programming: SAS 1 – Base Programmer for SAS 9.4 certification (A00-231)” (4cr)

• 43hr/cr – 181hr (10wk) – 85hr Exam Prep – 22hr Video Lectures – 69hr Textbook & Labs – 5hr Waste

- **Definition:** Prepare for “Base Programmer for SAS 9 Certification (A00-211). Import and export raw data files, manipulate and transform data, combine SAS datasets, identify and correct syntax errors, and write SAS code
- **Course Setup / Plan of Action / Installation:** 3.50 hr (2d) – 7/14 : 8/6 (after term started)
 - DONE – 0.75 hr – Compile info that is available below (course not yet activated so very limited what I can see...will need to revise later)
 - DONE – 2.25 hr – Prepare Course Study Plan by reviewing WGU website materials, listing out below, mostly reading thru Course Chatter
 - DONE – 0.15 hr – [LINK](#) – SAS Q&A from Webinar
 - DONE – 0.15 hr – [LINK](#) – SAS Tips and Strategies Article from SAS Communities
 - DONE – 0.20 hr – [LINK](#) – Support.sas.com/certify/ (Lots of useful sub links)
- **WGU Course Work / Learning Resources:** 73.00 hr (36d) – 14.25 hr Video – 58.75 hr Textbooks – 7/15 : 8/20
 - (1) **“Preparing for Success”** (0.65hr video)
 - DONE – 0.25 hr – [LINK](#) – **WGU Site:** Performance-Based Programming Exam Tutorial (WGU Course Study Plan, Preparing for Success)
 - DONE – 0.15 hr – [LINK](#) – Access Data in SAS Libraries (Repeat of free SAS training above; be sure know how to create a library using LIBNAME in SAS code)
 - DONE – 0.25 hr – [LINK1](#), [LINK2](#), [LINK3](#) – Google Mark Stevens SAS for on target YouTube Videos
 - DONE – 0.15 hr – [LINK](#) – FAQ Exam Prep
 - DONE – 0.10 hr – [LINK](#) – SAS FAQ about the exam
 - (2) **“Create a SAS Account”** (0.85hr Prep)
 - DONE – 0.25 hr – [LINK-WGU](#), [LINK-SAS](#) – Create SAS Account / Profile using WGU Email (section = “Create an SAS Account or Profile”) – ahh, was silently erroring because I previously setup using WGU account 3 weeks ago
 - DONE – 0.10 hr – [LINK](#) – Dr Sewell video for installing SAS University Edition
 - DONE – 0.50 hr – Problem: I cannot use SAS University Edition because I cannot change the BIOS on my work computer (a security no-go)...so I used the free Online Academic SAS Studio for all classes (2 WGU, 1 free from SAS, 3 from Coursera)
 - ✓ Workaround #1 - [LINK](#) - Use free Online Academic SAS Studio version instead [LEAST INVASIVE AND SIMPLEST OPTION]
 - ✓ Workaround #2 - [LINK](#) - Use WGU sandbox - SAS University Edition – thru browser +RDP + vmware
 - ✓ Workaround #3 - Research using SAS University Edition for AWS (\$8/mo and all online) – pending whether SAS Academic Online can be used...it can, so dropped this option
 - (3) **“SAS eLearning Course #1” (19.00hr Total – 4.00hr Video – 15.00hr Coding/Practice)**
 - DONE – 0.00 hr – [LINK](#) – SAS eCourse #1 Activation Code: **G70206563** (mentor provides activate code when course starts, also listed in WGU Course work site) – Oops, I already did the same class twice before quarter started (SAS free, Coursera for \$)
 - DONE – 5.00 hr – [LINK](#) – Supplemental SAS Self Training Site, Programming 1: Essentials (FREE-same as above if I’d wait for term to start, got credit thru SAS anyway b/c used my wgu email to sign-up at SAS)
 - DONE – 11.25 hr – [LINK](#) – Supplemental Coursera Course #1 “Getting Started with SAS Programming” (same as WGU Course #1), \$33/mo if buy 1yr subscription, else \$49/mo
 - DONE – 2.75 hr – [LINK](#) – Supplemental free from SAS On-Demand Webinar (Overview & Specialist buttons > On Demand Webinar > Media Player)
 - (4) **“SAS eLearning Course #2” (41.00hr Total – 8.5hr Video – 32.50hr Coding/Practice)**
 - DONE – 11.25 hr – [LINK](#) – SAS eCourse #2 Activation Code: **G70206812** (mentor provides activate code when course starts, also listed in WGU Course work site) – at main page, step 4 – Turns out this is identical to Coursera Course #2...so I will see both twice
 - DONE – 12.75 hr – [LINK](#) – Supplemental Coursera Course #2 “Doing More with SAS Programming” (same as WGU Course #2), included in same monthly rate as course #1 above
 - DONE – 17.00 hr – [LINK](#) – Supplemental Coursera Course #3 “Practical SAS Programming and Certification Review” (heavy practice for courses #1 and #2), included in same monthly rate as course #1 above
 - (5) **“Practice Labs Sandbox”** (0.50hr Total – 0.50hr Coding/Practice)
 - SKIPPED – 0.50 hr – [LINK](#) – MSDA Program lab environment. Gave up after 30min trying to get past SAS Studio error in old VM; did all the lab table work many times over in tasks above, so set option = Skip.
“uCertify Practice Exams”
 - Moved the 5 flash cards and practice tests down to a lower section...after more training + flashcards + write my own Exam Guide with sample code to be more ready for practice tests
 - (6) **“Supplemental eBook” (10.75hr Total – 10.75hr Text)**
 - DONE – 10.75 hr – [LINK](#) – SAS Certified Specialist Prep Guide: Base Programming Using SAS 9.4 (Link1); (434 pg – EXCELLENT material); Identical to “ISBN 978-1-64295-176-9” which can check out from WGU library for 60days (**420 pg**)

- **Supplemental Training:** 14.0 hr (2+d) – 7.75 hr Video – 6.25hr Textbooks – 8/21 : 8/23

- **“Course Chatter Documents & Links”** (6.25hr Text)

- DONE – 0.25 hr – SAS Exam Content Guide – Read now, but CRITICAL to re-use 23 main objectives are always on the exam, practice coding solutions to each in subsequent studying
 - [LINK](#) – Top 23 Main SAS Objectives are on page 1 here (with a link to all 70)
 - [LINK](#) – All 70 SAS Objectives in this PDF (in course chatter at WGU too)
- DONE – 0.25 hr – [LINK](#) – SAS Certification Review - 366 pg (Course Chatter = “SAS Certification review_C747.pdf”) – identical to SAS course 1 & 2 I took + Coursera course + WGU – so already reviewed 3x as videos + quizzes
- DONE – 0.25 hr – [LINK](#) – Learning SAS Coding in 50 minutes (Excellent review of the rules...bookmarked this and will re-skim read it periodically until exam; and use it to write my own 23 main objectives with examples doc)
- DONE – 1.75 hr – [LINK](#) – Smaller Course Chatter Attachments...
 - 0.05 hr – “747_suggestions.pdf”
 - 0.10 hr – “BestSASOutline.pdf” – skim read, excellent material, but will need to re-write myself and tie directly to Exam Content Guide list of 23 main objectives...so re-use this doc later
 - 0.85 hr – “Student Advice Guide” + reviewing links in there
 - 0.25 hr – Misc. Documents in the Course Chatter
 - 0.50 hr – “SAS Summary.pdf” – 76pg, excellent summary of the videos with crisp code examples, will use this to create my own Exam Guide with 23 Main Objectives and Example Code
- DONE – 0.25 hr – [LINK1](#), [LINK2](#) – Step-by-Step Programming (syntax) guide (Link1 = quick ref sheet, Link2 = 896 page PDF) – In the Course Chatter – too big, use it as reference to answer Q’s, redundant to above so not read
- DONE – 3.50 hr – [LINK1](#), [LINK2](#) – Penn State Online Masters SAS / Statistics Courses – Skim read courses 480 (link1) and 481 (link2)

- **“Videos”** (7.75hr Videos)

- DONE – 6.25 hr – [LINK](#) – SAS Beginners 12hr training at 2x
- DONE – 1.25 hr – [LINK](#) – Trevor F’s SAS YouTube Videos (Excellent, covers most of the main 23 topics of SAS Exam Content Guide, with code samples)
- DONE – 0.25 hr – [LINK](#) – Top 5 SAS cert questions answered

- **Flashcards/Practice Question Sets:** 12.75 hr (8d) – 12.75 hr Test Prep – 8/15 : 8/23 – 485 Q’s

- DONE – 8.50 hr – [LINK](#) – 209 Flashcards uCertify “Test Prep” (Answer each Q correctly 3 times to pass, random order, like flashcards but better b/c gives answer and reason) – time waster b/c so many macro questions (not on test)
- DONE – 0.75 hr – [LINK](#) – 58 Flashcards on Cram (same file available on Course Chatter as 8pg pdf) – good, ties to Exam Guide 23 areas nicely
- DONE – 0.75 hr – [LINK](#) – 100 Flash Cards for Exam by SAS (good prep, sign up for account using wgu.edu email)
- DONE – 1.50 hr – [LINK](#) – 68 Flashcards by Quizlet (okay, but no description for some tricky ones when answer wrong, did learn a few things though while trying to understand answer, so worth it)
- DONE – 0.25 hr – [LINK](#) – 10 Sample Questions (almost all identical duplicates of Q’s done above, so quick to answer)
- DONE – 1.00 hr – [LINK1](#), [LINK2](#), [LINK3](#), [LINK4](#) – 40 Practice questions on ListenData Base SAS cert (4 sets of 10 Q’s each, excellent answer descriptions provided)

- **Make My Own Exam Guide, 93 Objectives with Example Code:** 29.50 hr (8d) – 29.50 hr Test Prep – 8/23 : 8/30

- DONE – 29.50 hr – [LINK](#) – My 29 page Exam Guide; mapped the 23 main objectives to the 70 expanded objectives and added source code and screenshots and tips, I learn best by writing and re-organizing info

- **Practice Exams:** 29.50 hr (13 d) – 29.50 hr Test Prep – 8/30 : 9/11 – 411 Q’s

- **“uCertify Practice Exams”** (7.75 hr Test Prep - 209 Q’s)

- DONE – 7.75 hr – [LINK](#) – uCertify Practice Exams (Took all 5 practice tests and passed...but some had problems with questions and answers so got lower score than should have)

- **Better Practice Exams** (16.00 hr Test Prep - 202 Q’s)

- DONE – 0.75 hr – [LINK1](#), [LINK2](#), [LINK3](#) – AnalyticsExam.com information, ad, a few sample questions
- DONE – 0.25 hr – [LINK](#) – 10 SAS free practice questions for A00-231
- DONE – 1.50 hr – Re-review all the saved Cliff’s Notes from SAS Course 1 and Course 2 – Excellent summaries
- DONE – 5.25 hr – [LINK](#) – 150 practice Questions - AnalyticsExam - **\$41.30** for 2 mo access, **A00-231** SAS 9.4 Base Program Exam Prep / Sample Tests
- DONE – 8.25 hr – [LINK1](#), [LINK2](#), [LINK3](#), [LINK4](#) – 42 practice Questions - SAS free practice exam SAS 9.4 Base Programming Performance-Based Exam (PE-231P) -- all links eventually arrive same place, took it twice, reviewed answers + studying between

Final Prep: (5.75 hr Test Prep)

- DONE – 0.25 hr – Email to get approval from CI (Course Instructor), include study plan + test scores proving ready to go (proof 80%+ on two or more practice tests)
- DONE – 5.50 hr – Re-Review all practice tests above (SAS, uCertify, Analytics Exam)

- **Final Exam:** 10.25 hr (6 d) – 29.50 hr Test Prep – 9/12 : 9/18

- DONE – 4.00 hr – Schedule Exam at Pearson Vue & SAS; Code to use is “**academic_s22f**”; all kinds of laptop issues, no test centers open, problems scheduling, etc. uggg.
- DONE – 2.75 hr – Test prep day before and day of exam (sign-in, double-check reservation, setup office for test, etc.)
- DONE – 2.50 hr – Take exam, (30min setup, prep time + 120min taking test) – note, exam was 2hr 15min allotted (was expected 2hr only)
- DONE – 0.50 hr – Email Exam Results (Report) to scores@wgu.edu (takes up to 5 days for SAS to email results, so logged in to SAS, redirected to PearsonVue, got scorereport.pdf from there and emailed)
- *Waited 6 days for email to be approved (but mentor let me start next course anyway)*
- DONE – 0.5 hr – Wrap Up the course, bundle this doc into Study Plan, etc.

- **Cancelled Tasks:** 5.25 hr (61d) – 7/14 : 9/12

- FAIL – 1.00 hr – Setup SAS University Edition (since onDemand for academics would not work before quarter start; ran into issue configuring university edition – not want to change company laptop bios)
- DONE – 2.50 hr – [LINK](#) – SKIP THIS (not relevant) - You Tube SAS Analytics U (44 short 4-6min training videos...just stream them all at 2x) – Click “PLAY ALL”
- DONE – 0.75 hr – [LINK](#) – 30 free SAS videos; only view those tied to the Exam Guide topics, skip the rest; Links “Programming”, “SAS Studio > Getting Started with..”, “SAS Studio > Managing Data” (lot of duplicate videos)
- DONE – 0.25 hr – [LINK](#) – LinkedIn Learning for SAS Institute (14 courses, each 15-45min in length) – Note these are all ***identical*** excerpts from the SAS training, WGU training, and Coursera training
- CANCELLED – 0 hr – \$780 – [LINK](#) – SAS Self Training Site, Programming 2: Data Manipulation Techniques
- CANCELLED – 0 hr – \$79 – [LINK](#) – SAS Books, Certified Specialist Prep Guide: Base Programming Using SAS 9.4
- CANCELLED – 0.25 hr – [LINK](#) – Problem Scenario 1 – MCQ Example starting about 6min in (hadoopexam.com/sas/all_sas_products.html)
- CANCELLED – 0.10 hr – [LINK](#) – 119 Questions in blog style layout (slow), from 2006 (too difficult to read, out of date, waste time, better to purchase recent practice test)
- CANCELLED – 0.15 hr – [LINK](#) – 1or9 SAS base questions (lots of great questions, but the answers by students only are poor)
- CANCELLED – 0.10 hr – [LINK](#) – Udemy Practice Exam SAS Base 9.4 – Correct version of test, but only 40 questions and is \$95
- CANCELLED – 0.10 hr – [LINK1](#), [LINK2](#) – Udemy Practice Exams – Is old version 9 questions, last updated 3 years ago in 2017
- CANCELLED – 0.00 hr – [LINK](#) – SAS Academic Promotion Code for buying additional practice tests (email SAS from wgu email as proof and get student discount)

If this document was helpful, hit me up on social media at www.linkedin.com/in/mpierceAD576