

# CODE OF PRACTICE STUDY DATA & ANALYTICS

PRINCIPLES OF PRIVACY & ETHICS

22 NOVEMBER 2021, V2

Responsible, open and personally engaged. These are the core values of the Vrije Universiteit Amsterdam (VU Amsterdam). They serve as a guideline for the work and conduct of staff and students. Our core values are inextricably linked to the way in which VU Amsterdam achieves excellence in teaching and research.

VU Amsterdam sees great value in the application and further development of research into study data (analytics) to improve our policy on student intake, progression, graduation and labour market success in VU bachelor's, premaster's and master's programmes. We also see the importance of analytics for enhancing the quality of education and assessment of the programmes. In addition, there are opportunities for scientific research and the personal guidance of students.

The VU is committed to using analytics in a way that is consistent with its core values. This Code of Practice describes the vision of the VU, the way analytics is used and the ethical principles and privacy conditions we apply.



We are responsible, open and personally engaged in all areas, including privacy and ethics in the use of analytics in education



## Reading guide

This Code of Practice is intended to:

- I. Inform students about how the VU applies analytics and how the VU processes their personal data in this context. This Code of Practice is therefore an elaboration of the '[Regulations for the protection of personal data of students at VU Amsterdam](#)'.
- II. Inform employees and scientists about the application frameworks for analytics as well as the working methods and procedures of Team VU Analytics.

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## **What is analytics?**

Analytics is a collective term for analysing study data. Using data techniques and tools, study data is converted into useful information for the VU and students.

## **What are study data?**

Data from prospective, current and former students related to demographics, education, study phases, academic success, satisfaction, VU facilities, education and assessment.

## **Within which domains is analytics used?**

Analytics is used within the VU for:

- a. policy making;
- b. scientific research; and
- c. Individual guidance of students in making better study choices.

## **Who is using analytics?**

- Team VU Analytics

Team VU Analytics has a central and coordinating role in applying analytics to study data. The team is part of the Department of Student and Educational Affairs (SOZ).





Team VU Analytics focuses on analytics for **policy-making**. Team VU Analytics provides *evidence-based* support and actionable insights at the group level to improve intake, academic success and the quality of education and programmes at the VU.

### Faculties

Faculties also make use of analytics. This mainly concerns **scientific research** with study data and **individual guidance** of students in making (better) study choices. Because of their expertise, Team VU Analytics can offer support in this regard.

### **What do analytics say about you?**

#### Policy making or scientific research

When analytics is applied for the purpose of policy making or scientific research, it is aimed at gaining general insights into education and student functioning at **the group level**.

#### Individual guidance

When analytics is applied for the individual guidance of students to make (better) study choices, analytics is applied to gain insights on an **individual level**.

- ✓ Students are informed in advance how analytics will be applied in their case in order to guide them individually.





## What is this Code of Practice about?

In this Code of Practice, we explain:

- How we use analytics with study data in the three aforementioned domains and how your privacy is safeguarded;
- What are the application frameworks for analytics in the three aforementioned domains for VU staff and scientists; and
- How Team VU Analytics works.

## What is this Code of Practice not about?

This Code of Practice does not cover the use of analytics in other domains. Such as the use of analytics within educational courses to assess or guide students in their learning process (also called Learning Analytics). If this takes place, students will be informed separately.

## Suggestions or questions?

- This Code of Practice is a living document with room for additions and clarifications. The Code of Practice will be evaluated annually and amended or supplemented where necessary. Do you have any suggestions or questions? Please contact Team VU Analytics at [vu-analytics@vu.nl](mailto:vu-analytics@vu.nl).



### Student interests

- The VU wants to apply analytics in a responsible way and make it an integral part of the educational quality cycle.
- The interests of our students are our main concern: analytics contributes to impartial and inclusive participation in education by providing information and insights that contribute to the quality of education and educational support.
- Analytics is applied in such a way that:
  - a. the rights and interests of students are always paramount and respected;
  - b. no action taken is in conflict with the VU's legal obligations (e.g. as regards privacy), values and ambitions;
  - c. the advantages and possible disadvantages are always weighed up;
  - d. the privacy of those involved is never disproportionately violated;
  - e. the VU is transparent and students are well informed; and
  - f. students always have the possibility to object to the use of analytics or - if they have given their consent to the data processing - to withdraw their consent.

### Academic success

- VU applies analytics with the aim of improving student intake, progression, graduation and labour market success, and the quality of education and assessment at VU by:
  - a. achieving evidence-based policy improvements for information, connection, education, assessment, student guidance and educational support at the VU;
  - b. strengthening the quality of relationships between prospective students, students, teaching staff and support staff, as well as the quality of relationships within these groups;
  - c. improving the quality of education and education support systems;
  - d. contributing to scientific research on learning, teaching and academic success.



### Transparency

- Students are always clearly informed in advance of the processing of their personal data. They always have the opportunity to ask questions, get additional clarification and to object or withdraw their consent if it has been given.
- The VU and its staff are transparent about the use of data with the aid of analytics: where use is made of analyses and insights from analytics when formulating policy or making decisions, this is mentioned with an explanation of what data have been used and how they have been analysed.
- All VU staff involved in the application of analytics receive clear instructions on how to handle the data.



### Three domains

The VU uses analytics to improve policy making, scientific research and individual guidance. Students' personal data in these domains are only processed for the stated purposes.

#### 1. Policy making



Team VU Analytics uses study data to provide comprehensive insights at *the group level* into patterns and developments in student intake, progression and graduation, their labour market success and timetabling. This helps policymakers and administrators to **develop and evaluate policy**.

Insights into the background and academic success of cohorts enables student counsellors to **provide differentiated information and guidance to students**.

Analytics enables representatives and policy officers to gain a better understanding of the connection with prior education based on data about students' origins and academic careers. This enables them to **enter into dialogue with schools** about concrete possibilities for improvement at a general group level.

Analytics enables teachers to **improve the quality of their teaching and assessment** and better tailor their teaching and assessment to the needs of their students





- 2. Scientific research** Team VU Analytics enables VU researchers to carry out independent **research with study data** in order to arrive at insights at **the group level**. For this purpose, Team VU Analytics makes validated, uniform and pseudonymised datasets available to scientists under certain conditions (all directly identifying characteristics such as name, e-mail address and student number are removed from these data sets).
- 3. Individual guidance** In the case of individual guidance, prognosis models are used in the daily practice of education and guidance in order to guide a student individually. This is intended to give students more insight into their functioning so that they can make **better study choices**.





#### **Purpose**

Team VU Analytics provides VU with *evidence-based*, action-oriented insights to improve VU education and assessment, and the intake, progression, graduation and labour market success of VU students in bachelor's, premaster's and master's programmes.



#### **What does Team VU Analytics do?**

Team VU Analytics provides a data facility in which educational and student data are repeatedly brought together and analysed in order to improve the intake, progression and graduation of students in all phases of education.

Different sources of information are linked and transformed into a dataset that can be used to analyse academic success.

This form of analytics differs from other reporting environments because broader information can be analysed integrally and statistically and the information is built specifically around student registration.





#### Who is analytics for and what needs does Team VU Analytics want to fulfil?

- Students - Team VU Analytics supports all students by better substantiating and evaluating policy choices that meet the actual needs of all students.
- Teachers - Team VU Analytics enables teachers to improve the quality of their teaching and assessment and to better tailor their teaching and assessment to the needs of their students.
- Administrators and policy staff (central and faculty) - Team VU Analytics provides integral insights into patterns and developments in student intake, progression, graduation and success on the labour market, and timetabling, for policy staff and administrators.
- Student counsellors (academic advisors, representatives) - Team VU Analytics enables student counsellors and information officers to differentiate on the basis of analyses and thus to provide earlier and more targeted guidance to students in general.





## How does Team VU Analytics work?

Team VU Analytics collects data from source systems inside and outside the VU on the subject of student intake, educational background and phase of studies, demography, education and assessment, academic success, student satisfaction and labour market success.

POLICY MAKING

### Source data

Data files are pseudonymised and stored on a secure network drive.

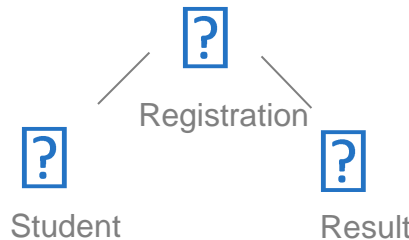


#### Sources

- VUdata, SAP SLM, Selligent, Language Proficiency Test, NSE, DUO, NAE, VU Alumnimonitor, CBS, Novusoft Study Choice Check

### Data model & data manipulation

The data is further processed, combined and modelled



#### Processing

- Transforming, cleaning, filtering, combining
- Flat tables by source with keys based on student number
- Statistical modelling

### Results

Subsequently, data is combined into datasets



#### Datasets

- Combined data, constructed from students registrations and results



## Roles in the establishment of the datasets

Four job types are relevant in the establishment of the datasets:

POLICY MAKING



### Database administrator

- Pseudonymisation and delivery of source files



### Data Engineer

- Transformation and combination of supplied source files
- Documentation



### Data Scientist

- Statistical modelling



### Business Intelligence Analyst

- Preparation of subsets for reporting

## Positioning within the VU

Employees  
VU-IT

Team VU Analytics

Team VU Analytics  
and scientific review  
by scientists of the  
VU

Team VU Analytics





So far, with the help of Team VU Analytics, the following insights have been developed for policy development and improvement.

#### I. General

- Intake and students' educational background
- Entry requirements (HBO-p law; premaster's BCO)
- Forecast intake of foreign students
- Forecast conversion of applications to registrations
- Pre-University College
- Connection to secondary education
- Academic performance and correlation with school grade averages and pass rates
- Student background and quality of orientation
- Visiting tours on open days
- Participation in the Pre student community
- Drop-out survey (students who do not come to study after enrolling)
- Matching questionnaire and activities
- The language proficiency test and the language proficiency refresher course
- Binding recommendation on continuation of studies (BSA)
- Dual studies (on the basis of combined registration)
- Related studies (based on combined interests of students)
- Premaster's programmes
- Progression from bachelor's and premaster's to master's, external intake Master's
- Transition to the labour market (Alumnimonitor) & labour market success
- National Student Survey (NSE)
- Pattern analysis of student dropouts and obtaining qualifications
- Developing forecast model for bachelor's dropouts beyond first year (pilot with informed consent)
- Relationship between academic success and interviews with academic advisors
- Academic success of international students
- An serious game about academic success to develop educational policy
- Prognosis of funding VU
- Exploration cooperation VU-TU Twente

#### II. Education and assessment

- Courses causing study delay
- Various self-evaluations by programmes
- Academic success patterns per programme







#### Do you want to know more about VU Analytics?

The links below provide more information on the practices and results of Team VU Analytics in the policy making domain.

Website: <https://vu.nl/nl/over-de-vu/meer-over/vu-analytics>

user guide (in Dutch):



impact notitie (in Dutch):





### What do we do in the domain of scientific research?

- Team VU Analytics enables VU scientists to conduct independent research with study data in order to arrive at insights at the **group level**.
- For this purpose, Team VU Analytics makes validated and uniform **pseudonymised datasets** available to scientists under certain conditions.
- These datasets do not contain any personal data that would allow a scientist to identify a student directly. All directly identifying characteristics such as name, e-mail address, date of birth and student number have been removed from these datasets.
- Scientific publications will never include personal data, not even pseudonymised ones.
- Team VU Analytics [website](#) has an overview page showing which scientific research has been conducted with study data since the date this version of the Code of Practice was adopted.

### Purpose

Contribute to scientific research on education and academic success.



#### What do we do in the domain of individual application?

- In individual application, models are used in the daily practice of education and guidance to guide students individually. The purpose of this is to give students more insight into their functioning so that they can make **better study choices**.
- Students are always specifically informed about this application of analytics in advance. All information that is necessary to give students a clear image of the data processing and to meet the requirements of the privacy legislation will be provided.
- At the moment, VU only provides individual guidance based on predictive models within the framework of the *Plan for Success* project. Students can participate in this project on a voluntary basis. They gain insight into how their study planning and progress relates to that of other students. This enables them to make better and more realistic (follow-up) choices.

#### **Purpose**

Giving the student more insight into his/her functioning, so that the student can make better study choices.



### 4.a What personal data is processed?

The personal data of students listed below (from cohorts up to a maximum of 15 years ago) is processed for policy-making purposes. For policy-making purposes, analytics is only used to obtain insights at **the group level**. No individual profiles of students are created and no special personal data (Article 9.1 of the GDPR) is processed.

#### Prior education / study phase

- Profile selection prior education
- Type of prior education and educational institution
- Year of highest diploma obtained & intermediate years
- Years of residence in HO, WO and type of HO
- Participation information sessions and introduction
- Matching
- Composition EI/EOI
- Ba / Pre-Ma / Ma
- Student travel time

#### Demography

- Gender
- Age
- Country of prior education & EEA/Non-EEA
- First generation university student or not

#### Academic success, student satisfaction, facilities

- Final exam results
- Language proficiency test and refresher course results
- Study performance at the VU
- Binding recommendation on continuation of studies (BSA)
- Switch (inside/outside VU)
- Drop-out 1<sup>st</sup> year, later years
- Honours and Cum Laude
- Exchange programmes, Minors, Specialisations
- Diploma date
- Progression within the VU
- Student satisfaction (NSE)
- Career information (alumni)

#### Education and assessment

- Course enrolment
- Participation in assessments
- Results



## 4.a What personal data is processed?

The following personal data is processed for scientific research purposes (from cohorts up to a maximum of 15 years back). Special personal data\* may also be processed. For this, explicit permission from students is required. If this is not possible, the scientific exception may be invoked under certain conditions (see 4.c).

### Prior education / study phase

- Profile selection prior education
- Type of prior education and educational institution
- Year of highest diploma obtained & intermediate years
- Years of residence in HO, WO and type of HO
- Participation <voorlichting> and introduction
- Matching
- Composition EI/EOI
- Ba / Pre-Ma / Ma
- Student travel time

### Demography

- Gender
- Age
- Country of prior education & EEA/Non-EEA
- First generation university student or not

### Academic success, student satisfaction, facilities

- Final exam results
- Language proficiency test and refresher course results
- Study performance at the VU
- Binding recommendation on continuation of studies (BSA)
- Switch (inside/outside VU)
- Drop-out 1<sup>st</sup> year, later years
- Honours and Cum Laude
- Exchange programmes, Minors, Specialisations
- Diploma date
- Progression within the VU
- Student satisfaction (NSE)
- Career information (alumni)

\* Special personal data are data revealing a person's racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, as well as genetic data, biometric data for the purpose of unique identification, data concerning health, data relating to a person's sexual behaviour or sexual orientation (see Section 9.1 of the AVG).



## 4.a What personal data is processed?

The personal data processed for individual guidance depends on the specific course. The personal data below may be processed for this purpose. The student will always be informed about this in advance. No special personal data (Article 9.1 of the GDPR) is processed.

### Prior education / study phase

- Profile selection prior education
- Type of prior education and educational institution
- Year of highest diploma obtained & intermediate years
- Years of residence in HO, WO and type of HO
- Participation <voorlichting> and introduction
- Matching
- Composition EI/EOI
- Ba / Pre-Ma / Ma
- Student travel time

### Demography

- Gender
- Age
- Country of prior education & EEA/Non-EEA
- First generation university student or not

### Academic success, student satisfaction, facilities

- Final exam results
- Language proficiency test and refresher course results
- Study performance at the VU
- Binding recommendation on continuation of studies (BSA)
- Switch (inside/outside VU)
- Drop-out 1<sup>st</sup> year, later years
- Honours and Cum Laude
- Exchange programmes, Minors, Specialisations
- Diploma date
- Progression within the VU
- Student satisfaction (NSE)
- Career information (alumni)



#### 4.b Which legal basis does the VU use?

In the domains:

1. Policy-making
2. Scientific research\*

personal data is processed on the basis of **legitimate interest** (Article 6.1 (f) of the GDPR).

- The necessary, legitimate interest lies in the fact that VU uses analytics for policy development, improvement of education & assessment and scientific publications in the field of education and academic success.
- The privacy of students is well safeguarded, as personal data is only used to arrive at insights on a **group level** and the personal data is adequately secured and only accessible on a 'need to know' basis (see also 4.h).

*\*When special personal data are processed within scientific research, the point of departure is that this personal data is processed on the basis of explicit, prior and informed consent of the student (article 6.1 (a) and article 9.2 (a) GDPR). Only when this is impossible or requires a disproportionate effort, is it considered whether the scientific exception to be able to process personal data without the consent of the data subjects can be invoked (see 4.c.). The processing basis is then legitimate interest (Article 6.1 (f) GDPR).*



In the domain:

### 3. Individual guidance

personal data is processed on the basis of **prior informed consent** (Article 6.1 (a) of the GDPR) or on the basis of **legitimate interest** (Article 6.1 (f) of the GDPR).

- The student is informed about this specifically for each application.
- Where personal data is processed on the basis of consent, the student may refuse or withdraw his/her consent at any time without giving any reason.
- Refusal or withdrawal of consent must not have any negative consequences.





#### 4.c Under what conditions may special personal data be used in scientific research?

In the domain of academic research, the basic principle is that special personal data are only processed on the basis of explicit **permission** from the student (see 4.b).

##### Scientific exception

If asking permission is **impossible** or requires a **disproportionate effort**, special personal data can be processed without permission if the following conditions are met (Section 24 of the Dutch GDPR Implementation Act):

- a. the processing is necessary for the purposes of scientific research;
- b. the research referred to in part (a) serves a general interest;
- c. seeking explicit consent proves impossible or involves a disproportionate effort; and
- d. the implementation is carried out with such safeguards that the privacy of the person concerned is not disproportionately affected.

The procedure for scientific research using the data sets of VU Analytics is further elaborated in **Appendix 2**.





## 4.d How are students informed about the application of analytics?

- The 'Regulations for the Processing of Personal Data by Students at VU Amsterdam' describes in general terms how the VU safeguards the privacy of students when processing their personal data.
- This document specifically describes how the VU safeguards the privacy of students in the processing of their personal data when using analytics.
- In the domains of Scientific Research (2) and Individual Guidance (3), students are always specifically informed about the data processing that takes place.
- More general information about the working method of Team VU Analytics can be found in the 'Impact notitie VU Analytics' (in Dutch) and on the website of VU Analytics.
- Team VU Analytics also regularly organises information meetings through the USR, student councils and the advisory board.
- Students with questions about Team VU Analytics can ask them via: [vu-analytics@vu.nl](mailto:vu-analytics@vu.nl)



#### 4.e Controller

The VU Foundation is responsible for processing of personal data within VU Analytics. The VU Foundation, as a special institution within the meaning of the Higher Education and Scientific Research Act (WHW), maintains the VU.

The VU Foundation has its registered office at De Boelelaan 1105 in (1081 HV) Amsterdam and is listed in the register of the Chamber of Commerce under number 53815211.

#### 4.f Who has access to the personal data?

VU staff members are only granted access to personal data on a *need-to-know basis* (see article 9 'Regulations on the processing of personal data by VU University Amsterdam students')

- Access to the datasets is restricted to the staff of Team VU Analytics.
- Scientists have access only to pseudonymised study data. For specific policy themes dashboards are created by the staff of Team VU Analytics on the basis of secure subsets (secured with one-way encryption).
- The content of these dashboards is aggregated to the visible level of the dashboard and made available to stakeholders within the VU. Personal data are never visible via the dashboards.





## **4.g Are my personal data shared with third parties?**

Within the framework of VU Analytics, no personal data is shared with other parties.

Through dashboards developed by Team VU Analytics, personal data are never visible.

## **4.h Is my personal data transferred to other countries?**

If the personal data are transferred to countries outside the European Economic Area, the VU will ensure that the personal data is extra protected by, for example, making extra arrangements with suppliers. A copy of these agreements can be requested from the Data Protection Officer of de VU.

## **4.i How are personal data protected?**

Appropriate technical and organisational measures are taken to protect the personal data against abuse, loss, unauthorised access, unwanted disclosure and unauthorised changes. To secure the data, use is made of (offsite) backups, pseudonymisation, an authorisation policy, logging, confidentiality obligations and periodic vulnerability scans.



## 4.j How long are personal data kept?

The data is stored for a maximum of 15 years.

## 4.k Which rights do data subjects have?

Students have at least the following rights with regard to the processing of their personal data:

- **Right of access:** a student has the right to request an overview of the personal data the VU processes about him/her.
- **Right to rectification:** if a student believes that the data is factually incorrect or is incomplete or irrelevant for the purpose of processing, the student can request rectification of the personal data. Only objectively incorrect data can be corrected.
- **Right to object:** Under certain circumstances, students have the right to object to the use of their data by the VU.

In the situation that the processing of personal data takes place on the basis of the data subject's consent, the data subject also has the right to:

- **Right to erasure**
- **Right to restriction of processing**
- **Right to data portability**





Data subjects may exercise these rights by contacting the VU Data Protection Officer (DPO) at:

Data Protection Officer  
De Boelelaan 1105  
1081 HV AMSTERDAM

In order to process the request, those involved will be asked to identify themselves. This way, it is checked whether the request is made by the right person. If the person involved is not satisfied with the way in which the VU handles his/her personal data, the person involved has the right to lodge a complaint with the Dutch Data Protection Authority (Dutch DPA).





## Sources

- SURF, Learning Analytics onder de Wet bescherming persoonsgegevens – SURFnet (2015)
- SURF, Learning Analytics in 5 stappen: Een handreiking voor de AVG (2019)
- CSU, Learning Analytics Code of Practice 2016
- JISC, Code of practice for learning analytics, <https://www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics>

## Version history

- V1 - dated 16 November 2017, adopted by the Executive Board on 7 February 2018
- V2 - dated 22 November 2021, to be adopted by the Executive Board 1 March 2022

## Colophon

This Code of Practice has been developed by employees of Team VU Analytics - Student & Educational Affairs and the Department of Institutional and Legal Affairs - Institutional Affairs.





Scientific staff of the VU can request the delivery of specific datasets. The following procedure applies:

1. The scientist submits a request to Team VU Analytics (via [vu-analytics@vu.nl](mailto:vu-analytics@vu.nl)) with a brief, initial description of the research: purpose, duration, scope, people involved, type of data and research methods envisaged and the added value for students, lecturers and the VU.
2. The scientist receives from Team VU Analytics the Code Book with a description of available categories and variables in the VU Analytics dataset.
3. Based on the Code Book, the scientist indicates which categories and/or fields wishes to use, for which cohorts, study phase, faculty and programmes.
4. In addition, the scientist fills out a pre-DPIA based on the selection requested and any enriched data. The pre-DPIA is assessed by the Privacy Champion of the faculty. If necessary, a DPIA is drawn up by the scientist, possibly in collaboration with the faculty's Privacy Champion. Team VU Analytics and the legal counsels privacy of Institutional and Legal Affairs (BJZ) are available for advice.
5. The DPIA is reviewed by the legal counsels privacy of Institutional and Legal Affairs (BJZ) and the Data Protection Officer (DPO).







6. After positive advice from the legal counsels privacy of BJZ and the FG, a privacy statement is drawn up by the scientist, in cooperation with the faculty's Privacy Champion. Team VU Analytics is available for advice.
7. In case the scientist wants to have special personal data added to a data extract on the basis of permission, these data are requested from VUdata and added to the data extract by Team VU Analytics according to an established protocol.
8. In the event that the researcher wishes to enrich the data of VU Analytics with his/her own research data, the researcher provides Team VU Analytics once with a file via SURFfilesender.
9. The scientist contacts the RDM Support Desk of UBVU to draw up a data management plan and to arrange for adequate data security.
10. The scientist submits the signed User Statement, Privacy Statement, Consent Statement (if applicable) and information about the research to Team VU Analytics.
11. Team VU Analytics makes the extracts and provides the files via SURFfilesender. From that moment on, responsibility for compliance with preconditions regarding security and privacy is transferred from Team VU Analytics to the research project.

